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Commonwealth of Pennsylvania

REPORT

OF THE

Department of Mines

OF PENNSYLVANIA.

Part II---Bituminous

1913

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LETTER OF TRANSMITTAL

Department of Mines, April 1, 1914.

To His Excellency, John K. Tener, Governor of Pennsylvania:

Sir: In compliance with the Act of Assembly of April 14, 1903, I beg to submit herewith for transmission to the General Assembly the report of the Department of Mines for the year ending December 31, 1913. Part I covers in detail the operations in the twenty-one Anthracite Districts, and Part II the operations in the twenty-eight Bituminous Districts, as returned by the Inspectors. Observations and suggestions are also offered relative to mining subjects.

Respectfully submitted,

JAMES E. RODERICK,
Chief of Department of Mines.

REPORT

OF THE

DEPARTMENT OF MINES

INTRODUCTION

The production of coal in Pennsylvania for 1913 reached the vast proportions of 264,657,020 net tons, of which 173,030,064 tons were bituminous and 91,626,956 tons were anthracite. All previous records of production were beaten and the great coal-producing territory of Pennsylvania has again the distinction of producing one-half the entire output of the United States and about one-fourth the output of the world.

In the bituminous region the number of inside employes was 156,289, outside 33,635, total 189,924; in the anthracite region the number of inside employes was 128,667, outside 46,641, total 175,308.

The number of fatal accidents in the bituminous region was 611, non-fatal 1,164. The number of fatal accidents in the anthracite region was 624, non-fatal 1,238.

The production of coke by operators of coal mines under the supervision of the Mine Law was 24,718,238 net tons. In addition to this, about 2,000,000 tons were produced by iron and steel establishments that do not mine coal.

Two serious disasters occurred during the year that resulted in the loss of many lives. In the bituminous region, a disaster of great magnitude occurred April 23 at the Cincinnati mine of the Monongahela River Consolidated Coal and Coke Company, in which 97 lives were lost. A detailed account is given elsewhere in this report.

Another explosion occurred August 2 at the Brookside colliery of the Philadelphia and Reading Coal and Iron Company, in which 20 persons were killed. This explosion has never been satisfactorily explained. Various theories have been advanced as to its cause, but there has been no satisfactory solution of it. The tragic aspect of this disaster is accentuated by the fact that while only two men were killed by the original explosion, eighteen others, including the superintendent, the foreman, nine rescuers and seven tunnel men, were killed by a second explosion caused by the tunnel men igniting the gas released by the fall of a stump pillar following the first slight explosion.

The Department in furtherance of its desire and endeavor to reduce fatalities, has in recent years increased the inspection force until there are now twenty-eight inspectors in the bituminous region and twenty-one in the anthracite, an increase of nine in five years, and additional inspectors will be added in 1915. Every possible means of safeguarding the lives of the workmen is being adopted and it is hoped that the efforts to this end will be productive of good results in the future.

In the bituminous region there were slight labor troubles and disputes in eleven of the districts. In the anthracite region there were strikes of brief duration in thirteen of the districts. Many of these were what are known as button strikes. A strike of this kind has for its cause the objection raised by some of the employes to the employment of men who do not wear the button worn by the members of the United Mine Workers of America as a distinctive badge. In some cases the failure of even one man to wear the button has precipitated a strike.

IMPROVED MINING CONDITIONS

One of the interesting features connected with the mining industry at the present time, a feature that indicates the entrance of the humanitarian spirit into the practical realm of business, is the attention given by many operators to the moral, mental and physical welfare of the employes and their families. Not only have the First Aid and Rescue service and the hospital facilities been extended to a marked degree as a means of alleviating suffering in times of disaster, but the spirit of beneficence has manifested itself in various other ways.

A sincere and intelligent effort is being made by many operators to brighten and improve the living conditions in the mining communities and to lessen the monotony of the social life by healthful and agreeable diversions. Homes are being provided that are at once commodious, convenient and to a degree artistic. In many instances the houses are built of brick with up-to-date lighting and heating facilities, bath rooms and other conveniences that seem almost like luxuries. Neat and tasteful yards are connected with some of the houses. The streets and sidewalks have been improved and trees planted throughout some of the towns.

Athletic fields and playgrounds have been provided where baseball, football, tennis, croquet and other sports may be indulged in. In some of the smaller communities moving-picture shows, hotels and dairies are maintained by the operators at considerable expense. Social clubs and reading rooms afford delightful and healthful recreation for the workers and their families.

The progress of educational work has also been very marked. Substantial, well equipped school houses have been erected, capable teachers are employed and in addition to the usual curriculum, domestic science, kindergarten and sociological courses have been introduced. The departments for these new adjuncts are thoroughly equipped and in charge of expert instructors.

Mining classes for men who desire to take the examination for positions as mine foremen and fire bosses, classes in English for foreign speaking employes and classes in elementary branches for boys and men, are held two or three evenings a week. These institutions are very helpful to those who must work during the day.

Hospitals equipped with every modern device and necessity for quick, effective service have been built and are beautifully clean and sanitary, heated and ventilated perfectly and presided over by selected corps of physicians and nurses.

In short, the time is coming when the occupation of the coal miner will be relieved not only of many of the dangers that beset it, but also of many of the disagreeable and repellant features, and his home and social surroundings will be characterized by a sense of comfort, cheerfulness and attractiveness that have been unknown to him in the past.

FIRST AID CORPS AND RESCUE CORPS

The practical beneficence of First Aid and Rescue Work is being demonstrated daily in the mining communities of the State. Although of recent origin and purely humanitarian in character, this work has nevertheless firmly established itself as a most useful adjunct to the well recognized and universally applied preventive and remedial measures in force in the mining industry.

The primary object of First Aid and Rescue Work is to render quick service in times of emergency, and very nobly and effectively is it fulfilling its mission.

It is difficult to estimate the extent of the relief afforded by the First Aid Corps, or to tell how many lives have been saved by their quickly-responsive and intelligently directed efforts; but every day they relieve victims of disaster of pain and suffering, and sustain and protect them until the hospital is reached or the doctor arrives.

This work had its inception in England in 1880, and about the same time efforts were made to establish it in Germany, France, Belgium and Austria.

Its introduction into Pennsylvania was made in 1900 in the anthracite region. Although at first regarded with indifference or disapprobation, it gradually demonstrated its utility and in a short time won universal favor in that region, with the result that in recent years many hundreds of teams have been organized and thousands of men have been instructed in the work.

In the bituminous region the benefits to be derived from well trained First Aid Corps were not recognized until within the last three or four years, but the work once having been adopted has made tremendous progress. Some of the most expert and most thoroughly equipped corps in the world are now found at the bituminous mines.

This work is having another and a very important influence not expected when first instituted. The thorough and careful training in the methods of treating various injuries and conditions of helplessness and the fact that dangers are visualized and brought forcibly to the attention of the members of the teams are impressing upon them the necessity for more caution and more complete compliance with the rules of safety in the performance of their dangerous occupation.

This subject has been treated of in detail in the Department reports for 1906 and 1910; but on account of its importance and its tremendous growth in recent years the Department has collected statistics as to the number of First Aid teams in the State, and also the number of Rescue Corps.

In the anthracite region there are now approximately 454 First Aid teams, comprising 2,556 men, and the number instructed in the work up to the present time is 5,229. The number of Rescue Corps is 97, comprising 696 men, and in this work 2,521 men have received instruction. In the bituminous region there are 362 First Aid teams, comprising 1,779 men, and the number instructed in the work up to the present time is 2,156. The number of Rescue Corps is 52, comprising 282 men, and in this work 594 men have received instruction.

The reports received regarding this work, while incomplete, show that in the anthracite region during 1913 there were 20 lives saved by the prompt treatment of First Aid teams, and 3 by the Rescue Corps who used the pulmotor to resuscitate victims of fire-damp. In the bituminous region 27 lives were saved by the First Aid teams.

HOSPITAL AID TO MINERS

The great increase in the hospital facilities available for the miners and their families in times of sickness and injury calls for special mention.

It is true that for many years hospitals in the mining region have opened their doors freely and at little cost to the miners, but in recent years, owing to the increase in the number of mine employes and the general awakening of the helpful spirit, greater consideration has been given to their needs and many such institutions have been established largely for their benefit. These hospitals are maintained by State aid, contributions by the operators and in some cases by contributions from the miners as individuals or from their organizations.

The patients in many cases pay a small daily charge while inmates if able to do so. If not, the operators frequently bear the expense. In fact, many operators make it a rule to pay for the care of their workmen, the amount being generally a per diem charge of $1.00 or $1.25.

Pennsylvania, being the greatest of mining States, has given more attention to this matter than any of the other states. In fact, the efforts of the mine operator, the miner and the legislator have all been directed to the procuring of better, more extensive and freer hospital facilities. In every mining county of the State there are now institutions of this kind, equipped and managed in the most complete and scientific manner.

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The Department has recently collected statistics on this subject which, while incomplete, demonstrate in a convincing way the extent to which this work is being carried on. In the anthracite region there are 16 hospitals at which about 7,000 miners and 5,000 members of their families were treated during 1913. In the bituminous region there are 48 hospitals at which about 5,000 miners and 1,000 members of their families were treated.

In addition to these patients there were many others designated as out-patients, who received medicine and treatment, but were not inmates of the hospitals.

SIGN TO DIRECT EMPLOYES TO MINE EXITS

To guard against the possibility of employes losing their way when endeavoring to leave the mine, a uniform directing sign in the form of an arrow has been adopted by the Department for use in all mines.

The necessity for a device of this kind was made apparent by the finding of a man in one of the mines who had lost his way and wandered helplessly until exhausted.

The sign is 8 x 15 inches, with a black surface and the arrow in white, as shown by the accompanying cut.

The signs were sent to the Inspectors with instructions to distribute them among the operators to be placed in the mines, for the purpose of directing the employes towards the traveling ways or to the foot of the shafts or slopes where they can be hoisted to the surface.

Instructions were also given the Inspectors to prosecute any mine foreman who fails or neglects to comply with the instructions relative to placing the signs in the mines within forty days.

The Department is advised that the instructions of the Inspectors are being complied with.

PROSECUTIONS FOR VIOLATION OF THE MINING LAWS

The mining laws having been enacted primarily for the protection of the workmen, their enforcement is the first duty of the Department. The inspectors are, therefore, under instructions to see that the rules and regulations relating to safety are fully complied with. To accomplish this, it is necessary that offenders be dealt with promptly and decisively, as a warning to others against negligence and carelessness or wilful disregard of the provisions of the law. In the bituminous region during 1913 there were 133 convictions for various offences of this nature. The causes were as follows:

Refusal to set posts (2 miners),	2
Refusal to take down slate (2 miners and 1 loader),	3
Taking smokers' articles into safety lamp mine (16 miners, 1 laborer and 1 loader),	18

Using other than a designated way for traveling (1 miner), . .	1
Tamping a shot hole with coal dust in gaseous mines (5 miners and 2 loaders), ...	7
Wilfully breaking safety lamp (2 miners and 1 wireman), ...	3
Neglect to perform duties of fireboss (1 fireboss), ...	1
Neglect to protect trolley wire (1 mine foreman), ...	1
Neglect to mine coal properly (5 miners), ...	5
Employing minors under 16 years of age (3 superintendents and 1 mine foreman), ...	4
Failure to sprag coal (23 miners, 1 machine runner and 1 machine scraper), ...	25
Failure to provide second opening (1 superintendent), ...	1
Failure to measure air (1 mine foreman), ...	1
Failure of superintendent to instruct mine foreman (1 superintendent), ...	1
Disobedience of orders (1 miner), ...	1
Carelessly handling black powder with open light (11 miners),	11
Crossing danger board (13 miners), ...	13
Failure to place danger board (1 shot firer), ...	1
Failure to employ mine foreman in mine employing more than 10 persons (5 operators), ...	5
Neglect to take down coal (1 miner), ...	1
Firing blast and not notifying man in next chamber (1 miner),	1
Drunkenness (1 mine foreman and 1 loader), ...	2
Failure to examine room (1 fireboss), ...	1
Blasting from solid (1 mine foreman), ...	1
Tampering with signal apparatus (1 miner), ...	1
Failure to examine a rib section and neglecting to leave proper evidence of his presence (not given), ...	1
Wandering about mine without permission (1 miner), ...	1
Using open light instead of safety lamp (1 pumper), ...	1
Riding on loaded cars (6 miners), ...	6
Failure to place drag on rear of cars (1 trip rider and 1 superintendent), ...	2
Leaving trap door open (1 driver), ...	1
Forcing locked door open (1 miner), ...	1
Neglect to perform duty as topman (1 topman), ...	1
Refusal to remain in working place and loosening brakes on loaded cars (1 miner), ...	1
Removing danger board (1 miner), ...	1
Failure to tamp full length of hole and using short fuse (3 miners), ...	3
Entering mine without permission (not given), ...	1
Firing blast without tamping hole (2 loaders), ...	2
	133

SAFETY OR FLAMELESS EXPLOSIVES, KNOWN AS PERMISSIBLE EXPLOSIVES

From the statements made from time to time in the newspapers, magazines and trade journals, it might be inferred that before the establishment of the National Bureau of Mines in Pittsburgh, in 1909, the important question of explosives for use in the mines had received no attention in Pennsylvania. This is far from being the case. For the last ten or twelve years a good deal of consideration has been given this question by the State Department of Mines and by the foremen, superintendents and managers.

Safety or flameless explosives, now known as permissible explosives, were introduced into the mines of Pennsylvania at Johnstown, in 1902, shortly after an explosion of gas had occurred in the Rolling Mill mine at that place. The first one tried was known as Masurite and the persons who introduced it were very enthusiastic over its virtues, claiming that blasting could be done safely with it in the presence of an explosive mixture. They experimented in an abandoned entry in one of the mines where explosive gas was allowed to accumulate in the entry in a dangerous quantity, and were enabled to charge the hole with the new explosive and fire it with electricity without igniting the gas. The experiment was duplicated many times and each time without exploding the gas. Locked safety lamps were used when the experiments were made.

From Johnstown the men went to the coking coal mines of Fayette county, where they experimented in isolated entries in several mines, and demonstrated the safety qualities of the explosive to the satisfaction of several of the superintendents, mine foremen and inspectors. By degrees the new explosive gained the confidence of the superintendents to such an extent that orders were given for a limited quantity of it. During 1903 several of the most intelligent superintendents had the explosive in use in several of their most gaseous mines. After the Harwick explosion in January, 1904, in which coal dust played so important a part, superintendents, mine foremen and inspectors became more alarmed than ever about the possibility of blown-out shots igniting the coal dust, and since that time have given more attention to safety explosives. No loss of life has occurred from an explosion of gas or dust due to a blown-out shot since 1908.

During the years 1904 to 1909 inclusive, the coking coal mines of Fayette county made small use of explosives, except the so-called safety or flameless explosives. In 1904 or 1905 another safety or flameless explosive called Nehilite was introduced and was fairly successful. Other explosives from time to time were introduced and by 1909 there were possibly a half dozen different kinds in use. None of them was absolutely safe, but they were much safer than black powder or dynamite.

After the establishment in 1909 of the Testing Station in Pittsburgh, a great many new explosives were sent there to be tested, and all that passed successfully were designated "permissible explosives" and accepted by the Department of Mines of Pennsylvania for use in gaseous mines where locked safety lamps are used. They are probably as safe as explosives can be made.

The Act of June 9, 1911, prohibits the use, in mines where locked safety lamps are used, of any explosive that has not passed a successful test and been classified as permissible. The law, however, should go further and require permissible explosives to be used in all mines liberating gas in any quantity, whether safety lamps are used or not, and also in all other mines when the coal contains more than 10 per cent. of volatile matter. This would be a decided safety precaution. About thirty different kinds of explosives are on the market that can be safely used under the rules and regulations prescribed, after passing the rigid test of the Bureau. It will be necessary, however, to keep a vigilant watch to see that no deterioration takes place in subsequent consignments of explosives, as it is possible that for the sake of greater profit, an inferior quality of explosive might be furnished, by which the safety of the employes would be menaced unknown to the superintendent, manager and inspector.

To provide against such a contingency, the Department will at intervals submit samples of explosives in use to the engineer in charge of the Testing Station, and if the report made by him shows that any material deterioration has occurred in the quality, the manufacturer will be notified that the explosive cannot be used in the mines of this State for at least three months from the date of the test. A second adverse report would bar the explosive permanently from the State. This seems like drastic action, but not too drastic when monetary gain is valued more highly than human life. The Act of June 9, 1911, gives the Chief of the Department power to prohibit the use of explosives when they show deterioration.

Possibly it might be well for the State of Pennsylvania to have its own testing expert, as the National Bureau of Mines may find it too great a task to do all the testing necessary for the various states.

PICK AND MACHINE MINING VERSUS SHOOTING OFF THE SOLID

How coal shall be mined, that is, how it shall be liberated so that it can be loaded into cars, is a question that affords constant discussion. Whether the coal shall be mined by pick, by machines or shot off the solid seems to be a debatable question with many persons, but the Department of Mines has always advocated the use of the pick or machine.

In a recent article on this subject in the Coal and Coke Operator of January 8, 1914, a writer says:

"Under the present system (shooting off the solid) the waste of coal and material is gradually on the increase. Mines operating under unfavorable roof conditions are put to great expense in removing falls of slate in rooms, following the results of flying coal from shots. Props are knocked out, the slate falls and, in many instances, the room caves beyond repair, and with material loss.

There is another detrimental features to the present method, which is the elapsed time from the time the distinctive blast is fired until the props are reset, usually 16 to 20 hours. The roof that withstands such stress must be of extra good quality.

What is the system doing towards eliminating fatal and non-fatal accidents? While the improved working condition, the once per day firing and employment of shot firers, has been the means of improving the sanitary condition, and eliminated to a certain extent accidents caused by shots and falling slate while the miner was grappling in the powder smoke, you will find that accidents caused by falls of slate are more numerous than they were in former days. It is obvious that the method is disastrous to the employer and employe."

For many years, whenever occasion offered, the Department has protested against shooting off the solid in the coking coal mines of Pennsylvania, the only mines in which the practice is in vogue.

Somewhat extended reference is made to this subject at this time on account of a statement made by a correspondent in the Mine Workers' Journal immediately after the Cincinnati mine explosion. He said in part: "It was proven beyond a doubt that the Chief of the Department of Mines entered into a secret agreement with the operators of the Connellsville Field, allowing them to shoot their coal off the solid, which was a direct violation of the Mine Law at that time, and as a result, the present law was enacted in order that these open violations should be continued."

I do not desire to have any quarrel with this correspondent, but, in justice to myself, I shall state some facts that he may not have known that will prove the above quotation to be without any foundation.

When I was appointed Chief of the Bureau of Mines in May, 1899, it was the universal practice in the coking coal region to blast the coal off the solid and I was advised that the practice had been in vogue even before the passage of the first Mine Law in 1877. I have also been informed that the clause requiring that coal shall be properly undermined referred to mining where large coal was desired. The Commissions that prepared the Laws of 1877, 1886 and 1893 seem to have been of the same opinion or they would have covered this point either in 1886 or 1893, as they knew that the coking coal mines were at all times blasting coal off the solid.

Soon after I assumed office, I called the attention of the inspectors to this matter and they were also of the opinion that the term "proper mining" was not intended to apply to the coking coal mines; that "proper mining" meant mining where large coal was needed and could be produced and had no bearing whatever on the question of safety. Up to that time dust explosions from blown-out shots or from explosive gas were not even considered and no thought was given to that phase of the subject.

A great deal of opposition exists to blasting coal off the solid and for fear that the impression may be created that the great mining State of Pennsylvania is not only permitting, but has legalized it by recent legislation, I deem it essential that some explanation be made.

The practice has not been allowed in this State, except in coking coal mines, as stated, and then under peculiar circumstances that give it standing as good mining practice.

The reader of coal mining history knows that coal dust in connection with explosive gas has caused disastrous explosions. This has been known for more than sixty years, as Ralph Moore, an inspector in Scotland, called attention to it in 1850, and it has been known for possibly 30 years or more that coal dust alone under certain conditions would explode with disastrous results. The first serious explosion during my term of office occurred at the Rolling Mill mine in 1902. Although a careful investigation was made after the disaster, there was nothing to indicate that coal dust had extended the area of the explosion.

However, the explosion at the Harwick mine in January, 1904, by which many lives were lost, was shown to have been caused by coal dust ignited by a comparatively small body of gas. Up to that time none of the inspectors had objected to blasting off the solid in the coking coal mines of Fayette county, as the danger from explosions of dust from blown-out shots had not been feared and had received no attention, and the practice was never deemed a violation of the mine law.

After the Harwick explosion, the matter received a great deal of consideration, and the inspector in charge of most of the Fayette county mines, having called attention to the possibility of danger from this cause, the Department made a written protest against continuing the practice, as will be seen by the following letter sent to Inspector Isaac G. Roby:

May 3, 1905.

Mr. Isaac G. Roby,
Mine Inspector,
Uniontown, Pa.

Dear Sir:

Your letter of yesterday has been received and carefully noted.

You ask, "Will you place a construction on Rule 4 of Article XX of the Act of May 15, 1893? What I desire especially to know is, what the words 'properly undermine' mean."

In my opinion Rule 4 is worded in plain English and has only one meaning. "He (the mine foreman) shall direct that all miners undermine the coal properly before blasting * *."

The intention of this Rule is the safeguarding of the lives of the miners in mines where blasting is done. The phrase "undermine properly" means that the undermining shall be as deep as the shot is laid. Or, in other words, it means that no holes shall be drilled deeper than the undermining. It would be safer blasting if the undermining were 6 inches or a foot deeper than the holes that are bored for blasting. Our experience at the Harwick mine, and later at Eleanora shaft, proves that it is dangerous to blast holes that are bored over the solid coal. Under Rule 4 it is illegal to blast coal in any mine before it is properly undermined. It is the duty of the inspector to see that Rule 4 is complied with by the mine foreman.

Kindly acknowledge receipt of this letter.

Very truly yours,
JAMES E. RODERICK,
Chief of Department of Mines.

This order met with bitter opposition, especially in Fayette county, where the miners joined with the operators in protesting against the ruling of the Department. Several cases were taken to Court, but owing to the technicalities of the law, the Department was unable to sustain its position. It was finally decided to make a general prosecution and the inspector was instructed to arrest a half dozen mine foremen who had not complied with Articles VI and XX of the Acts of May 15, 1893, relative to the method of mining coal. This action had the desired effect of bringing the coal companies to a realization of the fact that they would have to fight to sustain their position. One of the representative operators requested a meeting with the Chief of the Department in order to discuss the question. When the interview was held he claimed that his mine foremen had not violated the law and explained why they were blasting from the solid.

The principal reason was, he said, that they wanted fine coal for coking purposes. Although that was a fact, I still maintained that the law was being violated in his mines, and when he asked what could be done to reach an amicable settlement and thus avoid a law suit, I informed him that he should comply with the provisions of the law by undermining the coal by pick or machine before it was blasted.

He claimed that the coal could not be undermined by pick, as the men in his employ and in the employ of other operators could not do the work, and to install machines would mean possibly an idleness of sixty days before machinery could be provided. I then told him that if he would engage shot firers, continue the use of permissible explosives and do the blasting at night when the employes were out of the mines, all prosecutions would be withdrawn. He agreed to the proposition and I immediately directed that the suits be suspended during settlement.

We met in Pittsburgh and made final arrangements by which all coking coal mines that would employ shot firers, use permissible explosives and do the shot firing at night, when the employes were out of the mines, were to be allowed to continue blasting off the solid.

As before stated, I am not an advocate of shooting off the solid, but under conditions such as exist in the coking coal mines, especially in Fayette county, where no explosion of gas or dust from a blown-out shot has occurred during the last fifteen years, I approve of it, and think it is a safer method than undermining and blasting the coal, as occasionally a blown-out shot will occur and ignite the coal dust even after the coal has been undermined.

In the proposed Bituminous Code of 1909, a provision was incorporated that would have legalized this method, but the coking coal operators and miners came to Harrisburg and had sufficient influence to defeat the Code. The same provision appears in the Code of 1911. I think the legislation on this subject, the publicity given it and the conflicts the Department has had with the operators and miners are sufficient proof that the Chief of the Department of Mines had no secret agreement with any operator or miner as to the method of mining coal in the Connellsville field.

Only permissible explosives are used in the coking coal mines and 95 per cent. of the mines are being worked exclusively with approved locked safety lamps.

EXPLOSION OF GAS AND DUST AT THE CINCINNATI MINE

On the afternoon of April 23, 1913, the Department of Mines was advised that a serious explosion had occurred at the Cincinnati mine of the Monongahela River Consolidated Coal and Coke Company in Washington county.

Ten of the inspectors from other districts were directed to repair immediately to the scene of the disaster to assist the inspector who had supervision of the mine in the work of rescuing the living and recovering the bodies of the dead. The work of the inspectors continued until midnight of the 25th. The Chief of the Department visited the mine on the 24th, and on account of the great loss of life that had occurred he named two commissions to investigate the cause of the disaster. One commission was composed of five State mine inspectors, and the other of three experts, two of whom were mining engineers and one a mine manager, not any of the three being connected with the Department of Mines. The commission of inspectors made the first examination of the mine April 28, after all the bodies had been recovered. The commission of experts entered the mine April 30. The reports of the commissions as made to the Department are printed herewith.

This explosion was entirely unexpected, as a dangerous condition was never known to exist in the mine, and the inspector of the district, Alexander McCanch, had made a complete inspection of it March 7, 8, 10 and 11, and found it in safe condition as usual. His report is printed herewith. Special attention is called to the air measurements as taken in each entry beyond the last room turned.

REPORT OF MINE INSPECTION

Inspection No. 10. March 7, 8, 10 and 11, 1913.

Operator M. R. C. C. and C. Co.; Name of mine, Cincinnati; Kind of opening, drift; Location of mine, Courtney; County, Washington; Are means of ingress and egress kept according to law? yes; Is the air measured by the foreman according to law? yes; Cubic feet of air measured at or near inlet, 114,000; number of separate legal splits of air, 8; Cubic feet of air measured in each ***entry beyond last room turned:***

Split Number	Cubic Feet Air	Number of Persons
1,	14,000	20
2,	10,000	20
3,	9,600	20
4,	6,480	16
5,	5,600	14
6,	9,000	30
7,	7,200	30
8,	7,000	22

Is there sufficient quantity of air conducted to the working faces of all entries and rooms? Yes.

Is the air conducted as far as practicable through abandoned workings? No.

Is the air conducted as far as practicable over falls? No.

Does the mine generate explosive gas in sufficient quantities to be detected by an approved safety lamp? Yes.

Did you detect gas in any of the return air splits, or in the main return airway? No.

Did you examine for gas in accessible abandoned workings adjacent to live workings? Yes.

Did you examine for gas in accessible parts of falls? Yes. Did you detect any gas on falls or abandoned workings? No.

Do you consider the mine a dusty mine? At points. What system is adopted to lay the dust? Water cars.

Is the system successful? Yes. Is the dust loaded and sent out after being watered? At times.

How far from face of entry or room are the sides, bottom and roof watered before blasts are fired? None.

Are safety explosives used? Yes. Name the safety explosives: Various kinds.

Are shot firers employed? No. Have they power to refuse to fire blasts improperly placed? *

Is the coal undermined before being blasted? Yes. Where coal is not undermined is blasting done at night? *

Is the mine worked with locked safety lamps? In pillars. What kind of locked safety lamps are used? Wolf.

Did you consider the mine in a safe and healthy condition when inspected? Yes.

Do the superintendent, foreman and fire bosses sign their reports according to law? Yes.

Is the hoisting machinery in good order? * Are the hoisting ropes in good condition? *

Are the safety appliances in safe working order? * Are the safety appliances tested and reported? *

Was the mine in operation when inspected? Yes. Did you see the superintendent on this inspection? No.

Did you see the mine foreman on this inspection? One day.

Did you find any violation of the law that may affect the safety and health of employes? Yes.

REMARKS

Under this head make any explanation needed regarding questions answered above by Yes or No. Also give any other information the Department should have regarding the matter to which the above questions pertain. The Department will expect the Inspectors to give information on all matters of importance.

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Suggestions or Instructions Given:

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Comply with law in all respects.

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ALEXANDER McCANCH, Mine Inspector.
First Bituminous District.
Monongahela, Pa., Post Office.

*Law does not apply.

Inspector McCanch's narrative report reads as follows:

"Monongahela, Pa., March 7, 8, 10 and 11, 1913. Inspection of Cincinnati mine, Monongahela River Consolidated Coal and Coke Company. Inspected 46 entries, 116 rooms and pillars, second openings and passageways. Examined the mine maps and mine records. Measured the air, et cetera. Made reports. Gave some instructions to the mine officials."

The Cincinnati mine is a drift operation, in what is geologically known as the Pittsburgh coal seam, and locally as Third Pool coal.

The coal seam is reached by four openings, namely, two shafts, a slope and a drift, the latter being the main opening through which the product is conveyed to the tipple on the Monongahela river, and the slope being used as a traveling way and second opening, while the shafts are used for ventilating purposes in conjunction with the drift and slope openings.

The seam is extracted by what is generally termed the room and pillar system. The main development is conducted on the four entry system, the cross entries being turned at regular intervals from the face entries. Very little coal is mined to the east of the face entries on account of the pitch of the seam.

The mine is electrically equipped, pumping and coal cutting being done by electricity. Electric incandescent lamps are also used at various points on the main roads where their use is deemed conducive to safety. Haulage is in part performed by electric locomotives, the coal being gathered by animal power to the entrance of cross entries, and thence conveyed to the main collecting station situated about 6,550 feet from the drift entrance, from which point it is hauled to the tipple by the tail rope system. The haulage engine used to actuate the system is located at the tipple.

The ventilation is produced by a 12′ 6″ x 6′ Capell fan of recent design, with all safety appliances, connected to a General Electric 100 H. P. variable speed motor by a silent chain drive.

At the time of the explosion the fan was acting as an exhaust, and the last report of the inspector prior to the explosion, which is dated March 7, 8, 10 and 11, shows that the ventilation was circulated to and about the face of the mine in nine separate divisions, each respective division being confined to its path by well constructed overcasts and stoppings of masonry, and that the volume of air in circulation was in excess of that required by law, the average volume of air per employe at the face of the workings being four hundred cubic feet per minute, and that the mine was free from gas and in a healthful condition. In fact, the evidence of the inspector given at the inquest, shows that gas was found generating at only two points, namely, nine and ten (9 and 10) Butt on west side of No. 14 face.

Mixed lights were used, that is, open lights and safety lamps, safety lamps being used in pillar workings and in all workings on the return side thereof, and in entries where gas was found to be given off, and in all working places on the return side of such entries. Permissible explosives were used throughout the mine, clay being used for stemming. Shots were fired in all places where safety lamps were used by authorized and competent shot firers. In places where open lights were used, firing was done by the miners themselves.

The fan being uninjured by the force of the explosion, permitted the work of rescue to commence immediately after the explosion, and the roads being little obstructed by falls and debris facilitated the recovery work, the first search of the mine being completed on April 25, at midnight.

All recovery work was done under the strictest regulation and only sufficient ventilation was carried to insure the health and comfort of the workmen, and to properly dilute and remove the gaseous products.

Immediately after the last body was recovered, steps were taken to put the ventilation in condition so that the mine might be thoroughly examined for the purpose of determining the initial point of the explosion and the cause thereof. Every facility within the province of the management was furnished to the end of making the investigation and examination exhaustive.

As a large portion of the mine was unaffected by the explosion and found in excellent condition by the inspectors, mining engineers, mine experts, miners and others, it is only fair to assume that the affected parts were in similarly good condition prior to the accident.

The inquiry into the cause of the explosion was very searching, and all persons who could throw any light on the matter were invited to testify. The print herewith shows the course of the ventilation before the explosion; also the location of the bodies, the direction of the explosive force and the flame area as affected by the explosion.

REPORT OF COMMISSION OF INSPECTORS

Hon. James E. Roderick, Chief of Department of Mines,
Harrisburg, Pa.

Dear Sir: In compliance with our appointment by you as a Commission of Bituminous Mine Inspectors to inquire into the cause or causes of the explosion by which ninety-seven lives were lost in the Cincinnati mine of the Monongahela River Consolidated Coal and Coke Company, April 23, 1913, we beg leave to report as follows:

We proceeded to the Cincinnati mine on the morning of April 28 and began our investigation. It is a drift mine, located near Courtney, Washington county, and consists of four openings, the main opening through which the coal is taken to the tipple at the river, a slope used as a traveling way, a shaft used as an intake airway and another shaft upon which an exhaust fan is placed. The fan is of the Capell type and is capable of producing from 150,000 to 200,000 cubic feet of air per minute. The workings are located about three miles from the mouth of the main opening and the fan is placed at a distance of about two miles from the same place.

We first examined the fan which is of the Capell type, 6 x 12 feet, and driven by an electric motor. It is used on the exhaust principle, and at the time was making 154 revolutions per minute with a one and nine-tenths inch water gauge. The motor was built by the General Electric Company. The voltage of the motor is 525.

The fan is equipped with explosion doors placed directly over the upcast shaft. The doors were blown open by the force of the explosion and apparently worked satisfactorily, as the fan and building were not damaged. We were informed that the ventilation was interrupted for about eight minutes at the time of the explosion. it having required that length of time to secure assistance and get the doors closed.

We entered the mine by going down the slope. No evidence of the explosion was noticed until we reached the main side track on the dilly road, where the force of the explosion seemed to have been exhausted near the mouth of No. 4 face entry. Incandescent light bulbs were observed at this point which the blast had not damaged.

The floor of this side track was not dusty. A stopping on the left side of side track was pressed in, and small loose stones on the tops of timbers at this point were not moved.

At the first break-through beyond the side track, dust was forced into the cracks and ledges of the coal side walls. The trolley and power wires were down for a short distance near No. 8 face entry on the main motor road. Just outside No. 8 face entry the force of the explosion appeared to have been much stronger, and the corners of ledges of the coal walls were smoothed off by heat and pressure.

We proceeded along the No. 2 butt entry parting and found much evidence of force. The stoppings in this entry were blown eastward, and some of the mine cars were damaged. Coke beads were seen on both ribs of the entry. Going up No. 2 butt entry off No. 8 face entry we noticed the coal sides of it had been blistered by the flame due to the explosion, although there had been but little force there. The signs of heat disappeared about 500 feet up No. 2 butt entry. There was no dust on the floor of this entry. The rooms were worked retreating from the top of this entry. A man's coat hanging on the first road post on the right side of No. 17 room was undisturbed and unburned. Abandoned rooms, near the upper end of the entry, had danger signals hanging in the entrances to them. Two full drums of calcium chloride were found in the mouth of No. 26 room. Some force was noticed at No. 30 room, and a wet place on the track was seen at No. 37 room, which probably quenched the flame as it traveled down this entry. The force splattered mud on the corner of No. 2 butt entry and No. 13 face entry.

We proceeded southward on No. 13 face entry and saw patches of coke, some of which were one-half of an inch thick on the walls near the face of the entry. There was considerable coke on the roof, sides and floors of those face entries. No gas was detected in those places. . We then went up No. 2 butt entry off No. 14 face entry, and noticed the side walls were severely burned. No evidence of heat was seen beyond the second break-through from the face of the entry. We went along No. 14 face entry to No. 3 butt entry and crossed some pools of water. In No. 3 butt entry the force seemed to have traveled in opposite directions. There is a break-through near the face of Nos. 3 and 4 butt entries, where we detected explosive gas two and one-half feet beneath the roof. The air current was traveling through the break-through. A mine car had been violently forced against the face of No. 4 butt entry. The face of this entry was very wet. The force was very strong in No. 4 butt entry, which was indicated by the iron track being moved down the entry. We next traveled along No. 14 face entry to No. 5 butt entry and found little evidence of the force of the explosion. We then proceeded up No. 5 butt entry, and noticed that the brick stoppings, which had been in the break-throughs between Nos. 5 and 6 butt entries, were blown toward No. 5. There was much soot and coke at the face of this butt entry and the force of the explosion seems to have been inward beyond the last break-through. In No. 6 butt entry there was evidence of much force. The face of the entry was about 100 feet ahead of the last break-through. Gas was generating freely at the face of the entry and was making a loud noise. An air measurement, taken 8 feet from the face, showed 4,320 cubic feet of air passing per minute. There was a wrecked mine car standing 75 feet from the face of the entry, the end gate of which was blown 46 feet in an outwardly direction. Nos. 7 and 8 butt entries were found to be clear of gas. An air measurement taken 40 feet from the face of No. 8 butt entry, showed 6,000 cubic feet of air per minute to be in circulation. The sides of No. 8 butt entry showed that great heat had been there. An open miner's lamp was found 7 feet from the face of this entry. Also a crushed open miner's lamp was found 4 feet from the face of No. 7 butt entry. We then returned to the surface.

April 29. We again entered the mine and proceeded to No. 3 butt entry off No. 14 face entry and found the force had traveled in opposite directions in Nos. 3 and 4 butt entries. We went along No. 14 face entry to Nos. 9 and 10 butt entries and found that the force of the explosion had traveled inward on No. 10 butt entry and moved the debris through the break-throughs toward No. 9 butt entry. An open lamp was found in No. 9 butt entry near the last break-through. Explosive gas was found at the faces of both these butt entries. No evidence of force was noticed beyond the last break-through in either butt entry. We went along No. 14 face entry to Nos. 11 and 12 butt entries. At a break-through between No. 13 and No. 14 face entries there was a brick stopping undisturbed. In this break-through there was much charred coal and coke. An oil open lamp was found at the face of No. 11 butt entry. A carbide open lamp was found in No. 12 butt entry, and an open lamp was found near the face of No. 12 butt entry. In this last named place there was a strong gas feeder coming from a clay vein at the face. There was evidence of much heat, but very little force. There was a great deal of soot hanging in strings from the roof and coal walls. In this entry the tight shot had been loaded out and the butt shot fired, but no material had been loaded from the time the blast was put off. An empty car was standing close to the face of this entry ready to load, with the canvas brattice hung close to the face of it, and a portion of it between the break-through and the face had not been disturbed. We went along No. 14 face entry and in a gob in room turned off this entry, we found some fuse which had been burned away. A stick of explosive had also burned, leaving some other sticks of explosive lying beside it unchanged. The newspaper wrappings of some sand dummies were burned away. There was evidence of great heat, but practically no force. There had been considerable heat near the ends of the North face entries, but very little, if any, force.

We went outward along No. 11 face entry to No. 12 butt entry which was being driven eastward off No. 11 face entry, and just north of No. 12 butt entry there had been a great deal of heat as the sides of the entries were severely blistered. The sides of both Nos. 11 and 12 butt entries were badly burned, but the evidence of heat diminished going toward the face, and beyond the last break-through the walls were clear upon which the fire bosses' date marks were plainly visible. We continued along No. 11 face entry until we reached Nos. 9 and 10 butt entries which were open to No. 8 face entry. The force of the explosion had traveled down both butt entries and also down through the break-throughs of the rooms driven from No. 10 butt entry. We next went to rooms on No. 4 butt entry and 4 butt parallel between Nos. 8 and 11 face entries, where we found the force and heat had gone down the butt entries toward No. 8 face entry, and part of the force of the explosion had gone back up toward No. 14 face entry through the room break-throughs. There had been great heat in some of these rooms.

April 30. We first went to No. 6 butt entry off No. 14 face entry to more carefully observe the conditions already observed there. The clay vein on the right rib of No. 6 butt entry was four cuts from the face, and runs diagonally across the entry, the direction being N. E. and S. W. It was about 15 inches thick.

We walked down No. 8 butt entry toward No. 14 face entry and carefully noticed the direction the forces of the explosion had traveled. The forces had moved apparently in both directions. Along No. 14 face entry, between Nos. 8 and 12 butt entries, the forces had traveled in opposite directions at the time of the explosion. We again visited the face of No. 12 butt entry and followed the direction of the force away from it. The force had been weak at the face of this entry, but it increased going toward No. 14 face entry. A trap door, which had been standing on No. 12 butt entry, between Nos. 13 and 14 face entries, had been carried away by the blast, and was scattered along No. 13 face entry toward No. 10 butt entry. One of the door posts still remained in position, and from the material clinging to the inby side, it was plainly evident that the force had come from No. 12 butt entry.

We then went to No. 8 face entry motor road, and noticed that great force had come out of No. 6 butt entry branch road. An undercast had been destroyed at the intersection of No. 6 butt entry and No. 8 face entry. Several hundred feet of 40 pound rails had been lifted up and still remained suspended above the floor, in some places over a foot high. The force of the explosion traveled inward along No. 8 face entry until it was exhausted near Nos. 15 and 16 butt entries. Some force had gone into Nos. 11 and 12 butt entries and some into mouths of Nos. 13 and 14 butt entries. No gas was detected in this section, except in Nos. 11 and 12 butt entries, where there was a body of gas extending back from the faces of both butt entries for a distance of probably 300 feet. This gas showed a distinct cap.

The mine is worked on the double and quadruple entry system. The seam is known as the thin-vein Pittsburgh and is between five and six feet thick. The face cleats of the coal are well defined. Entries are nine feet wide, and rooms about twenty-four feet wide. The air current was split as often as necessary, and was conducted around the mine by substantial stoppings and overcasts built of brick. A few doors were in use. Permissible explosives were used throughout the mine. Calcium chloride was sprinkled around the roadways and working places. Water was sprinkled by cars along the roads. Ventilation was conducted close to the working faces of the places known to generate gas. Break-throughs were made in all the room ribs at moderate distances, and canvas check doors were abundantly used on the entries to force the air currents through the rooms. The coal was hauled from the working faces by animal power to electric trolley motors, which collected the coal from various sections of the mine and conveyed it to the main side track, from which it was taken to the tipple by a tail rope haulage system. The coal was undercut in the entries and rooms by electric chain mining machines. The voltage of the current was about 500.

During our investigation we did not observe in any instance that the electric power wires were carried beyond the last break-through in any of the entries.

After a very careful examination of all the exploded portions of the Cincinnati mine, and noting carefully all evidences of the explosion present that would lead us to correct conclusions as to the point of origin and cause of the explosion, we are unanimously of the opinion that it originated at the face of No. 12 butt entry, being driven west off No. 14 face entry, north, and was caused by the naked light of a miner igniting a body of gas which had suddenly accumulated from a clay vein encountered therein. The force of the explosion traveled down Nos. 11 and 12 entries to face entries Nos. 14, 13, 12 and 11 and proceeded southward to Nos. 8, 7, 6 and 5 butt entries and then to Nos. 4 and 3 butt entries and then to Nos. 2 and 1 butt entries and cushioned itself against the faces of Nos. 11, 12, 13 and 14 face entries south and exhausted itself in an eastwardly direction towards the mouth of the mine.

Respectfully submitted,

THOMAS K. ADAMS,
Inspector, 3rd Bituminous District.

ISAAC G. ROBY,
Inspector, 5th Bituminous District.

CHARLES P. McGREGOR,
Inspector, 7th Bituminous District.

JOSEPH WILLIAMS,
Inspector, 10th Bituminous District.

ARTHUR NEALE,
Inspector, 19th Bituminous District.

REPORT OF COMMISSION OF EXPERTS

Hon. James E. Roderick, Chief of Department of Mines,
Harrisburg, Pa.

Dear Sir: Pursuant to instruction to us under date of April 26, 1913, to investigate, upon the ground, the cause of the explosion which occurred in the Cincinnati mine of the Monongahela River Consolidated Coal and Coke Company, April 23, 1913, we beg to report as follows:

We left Pittsburgh early the morning of April 30, 1913, arriving at a point known as "Mingo School House" along the Pittsburgh and Charleroi electric railway. At this point entrance is made into the mine by way of a rock slope, which is driven down to the coal on a pitch of about twenty degrees, the coal being some two hundred feet vertically below this entrance. We proceeded along what is known as the rock tunnel to where it intersects with the main haulage road, and approximately one and one-quarter miles from the river front entrance where the tipple is located. We proceeded along the dilly road, it being a rope haulage from the tipple to some distance beyond where we struck the main haulage road. After going a few hundred feet from this point of intersection, we saw the first evidence of the force of the explosion; it would appear to be a distance of about 7,000 feet to this point. As we proceeded farther we were informed that there the first dead body had been found. The man was known as a Parting Boss, and was discovered in a man-hole at the parting. Even beyond this point the guards to protect the workmen from coming in contact with the trolley wire had not been disturbed, even for a considerable distance beyond this point, excepting just a board here and there.

We also noticed that some of the electric light bulbs were standing intact right in the course that the force of the explosion would be exerted, so that this would appear to us as evidence that the force of the explosion was not very great at this point. As we proceeded along the main haulage road the force appeared to be greater. When we reached a point along this main haulage, which we termed the junction of No. 3 and No. 4 butts and the lower north main face entries, these entries being numbered 7, 8, 9 and 10, we found evidence of great force and fire, as the coal plainly indicated. At this point the machine boss had his workshop, the shop being made in a break-through, and extending the entire length from one entry to another, being brick-lined with nine-inch walls on each end. These brick walls were all destroyed, and we might say that it was around this particular junction that the fire was more in evidence than in any other part of the lower face entries.

From this point we proceeded on into the workings by way of No. 8 face to No. 5, No. 6, No. 7 and No. 8 butts, these four butt entries being driven as mains in a westerly direction. We traveled up these butts some 2,000 feet, where they are intersected by four upper face main entries, numbered 11, 12, 13 and 14. From this point we traveled north along No. 11 face to the first pair of working butt entries, No. 11 and No. 12, which are being driven in an easterly direction to meet No. 11 and No. 12, which are being driven off No. 10 face. We then proceeded on to the extreme end, and examined carefully the working faces of No. 11, No. 12, No. 13, and No. 14 face entries. There had been no evidence of fire within some twenty to thirty feet of the face of any of these entries, and really no disturbance. Paper, fuse and explosives were lying just as the workmen had placed them; even dinner buckets were not disturbed. Working back to where No. 11 and No. 12 butts west off No. 14 face are broken away, there was evidence of fire having played a conspicuous part in coking the face of the coal. The fire must have been very intense at this point, and must have lingered for sometime, because the coking effect was so plainly evident on the side of the rib, almost from top to bottom.

We proceeded up to the face of No. 12 butt, and noticed at the face a clay vein, which had evidently been shot and not disturbed afterwards. From this we retraced our steps through the break-through up to the face of No. 11 butt, back down along No. 14 face, crossing over the face entries and down No. 9 and No. 10 butts, traveling in the direction or toward No. 10 face. After having traveled some 1,000 or 1,200 feet we could get no farther by reason of an accumulation of water in a swamp, so that we retraced our steps and walked to the face of No. 9 and No. 10 butts off No. 14 face, back along No. 14 face to No. 8, No. 7, No. 6 and No. 5 butts, where there is an intersection of the north and south face entries. We traveled along No. 14 south and walked up to the face of No. 3 and No. 4 butts west, up to the face of No. 1 and No. 2 butts west, and to the face of No. 14, No. 13, No. 12 and No. 11 south. We then retraced our steps and traveled down to the lower face entries by way of No. 3 and No. 4 butts. This was the extent of our travels on Wednesday.

On Thursday morning we again entered the mine, following the same course to the intersection of No. 3 and No. 4 butts with No. 5, No. 6, No. 7 and No. 8 faces, proceeding along these face entries to No. 9 and No. 10 butts, which butt entries we traveled as far as we could get for the water, which prevented our getting through from the upper face entries to these entries. Going back down we traveled along No. 10 face to No. 11 and No. 12 butts to the face of these two entries. We were then in a section that had been unaffected by the force of the explosion, although the afterdamp would have, no doubt, traveled some distance along these face entries. We proceeded, however, to the extreme end of this section of the mine and up No. 19 and No. 20 butts to the face of the face entries driven off these two butts, and which were being driven north and south at the time of the explosion. Having satisfied ourselves as to the condition of this section, we retraced our steps, again traveling up No. 8 butt to the upper face entry and along No. 11 face north. We examined very minutely every detail that we thought might have a bearing upon determining positively where this explosion got its initial start.

When we arrived at the face of No. 12 butt off No. 14 face, it was plainly evident that this was the point where the explosion originated, and as previously stated, a clay vein had been shot and gas was given off freely. A tight shot had been fired and loaded out exposing a clay vein, but not penetrating it. When the butt shot was fired it penetrated the clay vein, tapping a strong gas feeder, and the gas could be heard blowing out of the fissures when we made our examination, which of course was a week after the explosion occurred. It is fair to assume that when the butt shot was first fired gas would be given off more freely than was the case when we made the examination. It would appear to us that prior to this butt shot being fired the entry was not making any gas. When the workman charged and lighted this shot he would naturally walk back from the face and stand in some protected place until the shot went off. It being about the noon hour, it is possible that the man sat down and ate his lunch while the smoke was clearing out of his working place. An empty car was standing right up at the face undisturbed, and we believe it is fair to assume that the man when returning to his working place pushed this empty car ahead of him. The entry going somewhat to the rise, the man pushing the car would, naturally, have his head down low when he reached the end of the rails with his car, and when he raised himself to an erect position, having an open light on his head, he ignited the gas that had accumulated during his absence. His cap and lamp were lying about ten or twelve feet from the face, and his body was found thirty or thirty-five feet from the face. The entry was bratticed up to within eighteen or twenty feet of the face, which appears to have been the custom in most of these entries. The last ten or twelve feet of this brattice had evidently not been disturbed by the explosion, while the brattice farther out was blown down. There was evidence of fire right at the face of this entry, the coal being blistered, and all the evidences which are known to indicate positively just where the flame had come in contact with the sides of the entry were apparent. We then traveled carefully from this point down the entry through the breakthrough in No. 11 butt, which runs parallel to No. 12. In No. 11 butt we examined everything very carefully, and found on the two visits we made that no gas was being given off in this entry. There was no evidence of flame having come in contact with the coal within some twenty or thirty feet of the face, while all through the breakthrough and a considerable distance up the entry there had evidently been intense fire. This was plainly evident on the sides of the entries by their having a regular coked surface.

It seemed to us to prove conclusively as we traveled away from the face of No. 12 butt of No. 14 face, back along No. 14 face, that the force had been increasing and the destruction greater. At the face of No. 9 and No. 10 entries, pit wagons were badly wrecked, the line of force having traveled in from No. 14 face entry toward the face of No. 9 and No. 10 butts. We retraced our steps to No. 8 butt, and here we made a most thorough examination, because in No. 6 butt gas had been previously reported. Twelve feet back from the face of No. 6 butt a clay vein had been cut, and in all probability gas first liberated. The place had been cut and the tight shot loaded out. The butt was standing and we noticed that no hole had been drilled in preparation for shooting down this butt. This entry had been worked with locked safety lamps, and this is the entry in which, we understand, the mine foreman, his assistant, and the men who were working the entry, were found. There is plenty of evidence to show conclusively that the direction of the force was from No. 14 face to the face of these butt entries, as we noticed upon our examination that the debris had been carried from along the entry side right up to the working face. From this point we traveled south, because the direction of the force of the explosion was certainly toward the face of these entries. After examining this section very thoroughly, gas was only discovered at the face of No. 12 butt, where we feel positive the explosion started. The face of No. 6 butt, as previously stated, was some twelve feet beyond the clay vein, and water was being given off in this place, but not a great deal of gas, as the gas was escaping through the water, and the noise was more in evidence than the gas itself.

We also noticed that a little gas was given off in No. 4 butt. The lines of force were all in the direction toward the lower face entries, and the damage done appeared very similar down No. 9 and No. 10 butts, No. 8, No. 3 and No. 4, where it spent its energy and evidently died out by getting relief up the air shaft and along the main haulage road. As previously stated, there was no damage done to the lower main section beyond No. 10 butt, and it appeared that practically all the workmen in this section escaped and got to safety, with the exception of a few men who rushed out along the main traveling way against the advice of the assistant mine foreman and others. Two men working at the face of No. 11 and No. 12 butts off No. 8 face north escaped three or four hours after the explosion occurred by way of the lower return airway.

As to the condition of that part of the mine unaffected by the explosion, we might say that the condition is good, and the conditions have not been changed from what they were prior to the explosion. There is ample ventilation and it is well conducted around all the working faces. We noticed that brick stoppings were erected in practically every instance in the last cut-throughs, excepting, of course, the ones used for hauling through. The roads were moist and practically free from dust, clean and free from obstructions. We also noticed in this section that drums of calcium chloride were placed at convenient points and used for sprinkling the roads for the purpose of laying the dust. In that part of the mine, which you might term the upper face section, the force of the explosion being very destructive, the stoppings were all blown out, as were the overcasts. The overcasts and stoppings were built of incombustible material, and the brick lie there in evidence. In this section of the mine we also noticed three drums each containing 250 pounds calcium chloride, which had not been opened. This would indicate that they had provided ample quantities of this safety factor, and as some of the drums were partly used, I think we can give this as a reason for the explosion not being more destructive than it was.

There is no doubt in our minds that the initial explosion was augmented by the gas given off the coal by the intense heat, which was shown by the condition of the entries through which the primary explosion passed. We are satisfied, too, that in a brisk air current some coal dust will be held in suspension, and the ignition of gases off the dust when coming in contact with the flame would add to the volume and increase the destructive energy. We are of the opinion that little gas is given off in any of the entries in this section, because even at the time of our visit, with the ventilation disarranged (the stoppings and overcasts having been destroyed and temporary ones of wood and brattice cloth having been put in) the entries were free from gas. As you will notice by reference to the map, No. 9 and No. 10 are up a considerable distance from No. 14 face; the same is true of No. 3 and No. 4, and of the four face entries, namely, No. 11, No. 12, No. 13 and No. 14, both north and south off No. 5, No. 6, No. 7 and No. 8 butts. Then leaving this section and going to the head of No. 19 and No. 20 entries off lower face entry No. 8 north, which are strongly to the right of the face of these entries, there is no evidence of gas, all of which would seem to justify the use of open lights.

We feel that no one will seek to dispute the fact that the sections of the mine unaffected by the explosion were found in excellent condition, viewed from every standpoint.

Respectfully submitted,

J. H. SANFORD,
WALTER R. CALVERLEY,
R. M. McKINNEY.

WORK OF THE MINE INSPECTORS

The work of the inspectors has been very satisfactory during the year. They have made every effort to secure strict compliance with the Mining Laws, and the result has been such as to commend their work to the Chief of the Department of Mines.

During the year they spent 4,518½ days inspecting mines; 32 days inspecting machinery and plants; 455½ days investigating accidents; 41½ days attending inquests; 1,526½ days at office work; 15 days inspecting maps and plans; 396 days in consultation on mining matters; 35 days in consultation on legal matters; 259½ days traveling on duty; 98 days on sick list; 119 days legal holidays; 114½ days attending court; 11 days at mine fires; 354½ days on Mine Foremen's Examining Boards; 40 days attending Mining Congress; 138 days attending examinations for mine inspector; 18 days attending funerals; 18 days on account of deaths in families; 21 days on account of sickness in families; 156½ days on vacation; 57 days on private business; a total of 8,425 days, or about 301 days a year for each inspector.

APPROVED SAFETY LAMPS IN USE, 1913

Districts	Oil					Electric		Total
	Wolf	Clanny	Seippel	Schenk	Ackroyd and Best	Ceag	Hirsch	
First,	3,931	......	......	......	......	....	275	4,206
Second,	1,910	415	......	......	......	....	....	2,325
Third,	6	......	......	......	......	....	....	6
Fourth,	25	225	......	......	......	....	....	250
Fifth,	......	744	351	50	698	310	....	2,153
Sixth,	782	42	18	......	......	....	85	927
Seventh,	306	......	......	......	......	....	....	306
Eighth,	2	......	......	......	......	....	....	2
Ninth,	2,211	1,640	......	753	......	....	....	4,604
Tenth,	32	......	......	......	......	....	....	32
Eleventh,	2,267	2,003	......	......	......	....	....	4,270
Twelfth,	648	......	......	......	......	....	....	648
Thirteenth,	1,343	......	......	......	......	46	....	1,389
Fourteenth,	531	4	......	16	......	....	....	551
Fifteenth,	17	......	......	......	......	....	....	17
Sixteenth,	4,517	......	110	46	......	....	....	4,673
Seventeenth,	350	7	......	......	......	....	....	357
Eighteenth,	4	4	......	......	......	....	....	8
Nineteenth,	3,333	......	......	......	......	....	....	3,333
Twentieth,	500	......	......	......	......	....	50	550
Twenty-first,	1,075	......	......	......	......	175	550	1,800
Twenty-second,	2,793	......	143	......	......	....	....	2,936
Twenty-third,	4,835	......	......	100	......	7	....	4,942
Twenty-fourth,	188	......	6	......	6	....	....	200
Twenty-fifth,	66	......	......	......	......	....	100	166
Twenty-sixth,	990	45	......	......	......	....	25	1,060
Twenty-seventh,	2,043	49	......	181	......	80	50	2,403
Twenty-eighth,	48	......	......	......	......	....	....	48
Totals,	34,753	5,178	628	1,146	704	618	1,135	44,162

ACCIDENTS

So much has been said in late years regarding the great efforts made to reduce coal mining accidents in the United States and the success attending such efforts, that the public at large may be led to believe that accidents have been reduced to a minimum. It is true, with reference to Pennsylvania, that they show a decrease when compared with the very disastrous year of 1907, but the yearly average has not varied greatly, except in 1912, when it was lower than in any of the other thirteen years, 1901-1913, as indicated by the table herewith. It is gratifying to show a record like 1912, but the number of fatalities that year should have been still fewer in view of the fact that there was a total exemption from explosions of gas and dust.

The fatalities in and about the bituminous mines of Pennsylvania, in 1912, averaged 2.44 for every 1,000 employes and 2.77 for every 1,000,000 tons of coal produced. In 1913, the average was 3.22 per 1,000 employes and 3.53 for every 1,000,000 tons produced.

To give an intelligent review of the subject, a period of thirteen years is taken including 6 years prior to 1907 and 6 years succeeding that date. The table immediately following shows that 1907 was distinguished as the year of the greatest number of fatalities, the percentage being 4.40 per 1,000 employes. During the first period of 6 years, 1901-1906, the average number of fatalities per year was 442, or 2.95 per cent. per 1,000 employes. The total number was 2, 651, of which 302 or 11.39 per cent, were caused by explosions of gas and dust, 112 at the Rolling Mill mine, 177 at the Harwick mine and 13 at the Eleanora mine. During the second period of six years, 1908-1913, the average number was 531 or 2.85 per cent. per 1,000 employes, a very trifling reduction from the percentage of the first period. The total number was 3,189, of which 330 or 10.35 per cent. were caused by explosions of gas and dust, 154 at the Marianna mine, 5 at the Orenda mine, 21 at the Lackawanna No. 4 mine, 13 at the Franklin mine, 11 at the Ernest mine, 21 at the Sykesville mine, 8 at the Adrian mine and 97 at the Cincinnati mine.

While the fatalities during the two periods did not differ greatly in the aggregate number, the number of explosions during the second period was almost three times as large as during the first period. Fortunately, with the exception of the Marianna disaster, in which 154 lives were lost, the explosions in the second period were not as destructive as those in the first. This is a matter for congratulation, but no credit can be given to any one for the comparatively small loss of life. That the explosions were not productive of more serious results was merely a matter of good fortune.

The conclusion seems to be inevitable that the average toll of life exacted from the mine workers cannot be greatly lessened, except by the exercise of more care and vigilance on the part of the workers to protect themselves from falls and cars. This opinion is based upon the facts as demonstrated by the statistics of fatalities gathered year by year by the Department. It is shown that approximately 72 per cent. of all inside accidents are due to falls and cars, by falls 56 per cent. and by cars 16 per cent.

The most expert of mining authorities, the most practical of mining officials, the most intelligent and careful of mine workers may devise the best possible methods of preventing accidents and the Department of Mines may rigidly enforce the preventive measures of the law, but until the men at work are led by education and admonition to be more careful in propping the roof and sides and in protecting themselves from cars, there will continue to be a deplorable list of fatalities.

The second table shows the causes of the fatal accidents inside the mines for the years 1901-1913, inclusive.

TABLE OF ACCIDENTS, 1901-1913

Years	Employes inside and outside	Fatal accidents inside and outside	Fatal accidents per 1,000 employes	Production	Fatal accidents per 1,000,000 tons	Fatalities by Explosions of Gas and Dust
1901, ...	117,501	301	2.56	80,914,236	3.72	
1902, ...	135,611	456	3.36	98,529,122	4.63	112 Rolling Mill.
1903, ...	151,745	402	2.65	103,713,982	3.88	
1904, ...	155,747	536	3.44	99,600,167	5.38	177 Harwick.
1905, ...	164,941	479	2.90	119,361,514	4.01	13 Eleanora.
1906, ...	172,928	477	2.76	129,532,989	3.68	
Averages, ...	149,745	442	2.95	105,275,335	4.20	302 Total.
1907, ...	183,121	806	4.40	149,559,047	5.39	273 Darr and Naomi.
1908, ...	181,840	572	3.15	114,937,375	4.98	154 Marianna.
1909, ...	185,921	506	2.72	136,205,695	3.71	5 Orenda. 21 Lackawanna No. 4. 13 Franklin.
1910, ...	193,488	539	2.79	148,770,858	3.62	11 Ernest.
1911, ...	182,653	515	2.82	142,189,329	3.62	8 Adrian. 21 Sykesville.
1912, ...	182,642	446	2.44	160,830,492	2.77	
1913, ...	189,909	611	3.22	172,965,659	3.53	97 Cincinnati.
Averages, ...	186,076	531	2.85	145,983,235	3.64	330 Total.

CAUSES OF FATAL ACCIDENTS INSIDE THE MINES, 1901-1913, INCLUSIVE

Years	Falls		Cars		Gas and Dust		Explosives		Blasts		Electricity		Falling down shafts and slopes		Miscellaneous		Total fatal accidents inside
	Number	Percentages	Number	Percentages	Number	Percentages	Number	Percentages	Number	Percentages	Number	Percentages	Number	Percentages	Number	Percentages	
1901,	187	65.38	43	15.03	27	9.44	2	.70	5	1.75	8	2.80	1	.35	13	4.55	286
1902,	223	50.45	47	10.63	*126	28.51	3	.68	5	1.13	11	2.49	11	2.49	16	3.62	442
1903,	238	63.46	60	16.00	23	6.13	5	1.33	9	2.40	10	2.67	7	1.87	23	6.14	375
1904,	237	46.29	51	9.96	†183	35.74	2	.39	4	.78	12	2.35	12	2.35	11	2.14	512
1905,	298	67.12	57	12.84	39	8.78	7	1.57	9	2.03	9	2.03	5	1.12	20	4.51	444
1906,	305	67.03	84	18.46	11	2.42	1	.22	7	1.54	26	5.71	5	1.10	16	3.52	455
Totals and percentages for six years,	1,488	59.20	342	13.60	409	16.27	20	.80	39	1.55	76	3.02	41	1.63	99	3.93	2,514
1907,	307	40.08	102	13.32	‡277	36.16	2	.26	13	1.70	23	3.00	20	2.61	22	2.87	766
1908,	262	47.64	76	13.82	§162	29.45	1	.18	5	.91	20	3.64	10	1.82	14	2.54	550
1909,	291	61.26	82	17.26	53	11.16	5	1.05	2	.42	22	4.63	8	1.69	12	2.53	475
1910,	306	63.22	107	22.11	15	3.10	5	1.03	5	1.03	30	6.20	9	1.86	7	1.45	484
1911,	308	62.86	90	18.37	29	5.92	.....	......	6	1.22	39	7.96	3	.61	15	3.06	490
1912,	249	61.18	106	26.05	1	.25	4	.98	4	.98	18	4.42	4	.98	21	4.16	407
1913,	317	56.50	104	18.54	‖97	17.29	3	.54	3	.54	21	3.74	4	.71	12	2.14	561
Totals and percentages for six years,	1,783	58.41	565	19.04	357	12.08	18	.61	25	.84	150	5.06	38	1.28	81	2.73-	2,967
Grand totals and percentages for thirteen years,	3,528	56.48	1,009	16.15	1,043	16.70	40	.64	77	1.23	249	3.98	99	1.59	202	3.23	6,247

*Rolling Mill disaster, 112

†Harwick disaster, 177.

‡Darr disaster, 239; Naomi disaster, 34; total, 273

§Marianna disaster, 154.

‖Cincinnati disaster, 97.

COMPARATIVE TABLE OF ACCIDENTS

United States, Pennsylvania, West Virginia, Illinois, Ohio, 1907-1913, Inclusive

The table herewith shows that for the 7 years 1907-1913, Pennsylvania produced 2.63 tons for every ton produced in West Virginia, 2.81 tons for every ton produced in Illinois, and 4.62 tons for every ton produced in Ohio.

The Pennsylvania production during the past seven years has been over 48,000,000 tons, more than the production from the other three states named.

The average number of fatalities in and about the bituminous mines of the State for the same period was 3.07 per 1,000 persons employed; in West Virginia, 5.93; in Illinois, 2.84; in Ohio, 2.81 and in the United States, 3.86.

Pennsylvania produced 789 tons per employe, West Virginia 854, Illinois 699, Ohio 656, and the United States 699.

In the matter of accidents the States of Illinois and Ohio should not be compared with West Virginia and Pennsylvania. The only fair comparison that could be made would be to eliminate accidents from explosions of gas and dust.

Possibly the states that should be compared with Pennsylvania are, Alabama, Colorado, Oklahoma and West Virginia, but reliable data are not at hand with which to make the comparisons.

COMPARATIVE TABLE OF ACCIDENTS.—UNITED STATES, PENNSYLVANIA, WEST VIRGINIA, ILLINOIS, OHIO, 1907-1913, INCLUSIVE

	Years	Employes inside and outside	Fatal accidents	Lives lost per 1,000 employes	Production of coal in tons of 2,000 pounds	Lives lost per 1,000,000 tons produced	Average production per employe
United States,	1907	655,418	3,197	4.88	461,406,000	6.93	......
United States,	1908	672,794	2,449	3.64	404,933,000	6.05	......
United States,	1909	666,523	2,668	4.00	460,761,000	5.79	......
United States,	1910	725,030	2,840	3.92	501,596,000	5.66	......
United States,	1911	728,348	2,719	3.73	496,221,000	5.48	......
United States,	1912	750,000	2,360	3.15	550,000,000	4.29	......
United States,	1913	728,355	2,785	3.82	570,000,000	4.88	......
Totals and averages,	......	4,926,468	19,018	3.86	3,444,917,000	5.52	699
Pennsylvania, bituminous,	1907	183,121	806	4.40	149,559,047	5.39	......
Pennsylvania, bituminous,	1908	181,840	572	3.15	114,937,375	4.98	......
Pennsylvania, bituminous,	1909	185,921	506	2.72	136,205,695	3.71	......
Pennsylvania, bituminous,	1910	193,488	539	2.78	148,770,858	3.62	......
Pennsylvania, bituminous,	1911	182,658	515	2.82	142,189,329	3.62	......
Pennsylvania, bituminous,	1912	182,642	446	2.44	160,830,492	2.77	......
Pennsylvania, bituminous,	1913	189,909	611	3.22	172,965,659	3.53	......
Totals and averages,	......	1,299,574	3,995	3.07	1,025,458,455	3.90	789
West Virginia,	1907	56,265	356	6.33	44,845,148	7.94	......
West Virginia,	1908	60,397	625	10.35	44,091,051	14.17	......
West Virgina,	1909	62,189	364	5.85	46,697,018	7.79	......
West Virginia,	1910	68,135	320	4.69	58,568,958	5.46	......
West Virginia,	1911	70,644	332	4.70	60,517,168	5.49	......
West Virginia,	1912	69,611	409	5.88	66,731,587	6.13	......
West Virginia,	1913	70,321	308	4.38	69,182,794	4.45	......
Totals and averages,	......	457,562	2,714	5.93	390,633,724	6.95	854
Illinois,	1907	66,714	165	2.47	47,798,621	3.45	......
Illinois,	1908	70,841	183	2.58	49,272,452	3.71	......
Illinois,	1909	72,733	213	2.93	49,163,710	4.33	......
Illinois,	1910	74,634	406	5.44	48,717,853	8.33	......
Illinois,	1911	77,410	157	2.03	50,165,099	3.13	......
Illinois,	1912	79,411	180	2.26	57,514,240	3.13	......
Illinois,	1913	79,497	175	2.20	61,846,204	2.83	......
Totals and averages,	......	521,240	1,479	2.84	364,478,179	4.06	699
Ohio,	1907	47,876	153	3.20	32,365,949	4.73	......
Ohio,	1908	50,276	112	2.23	26,287,800	4.26	......
Ohio,	1909	47,019	115	2.45	27,755,082	4.14	......
Ohio,	1910	48,830	161	3.30	34,424,951	4.67	......
Ohio,	1911	48,407	109	2.25	30,342,089	3.59	......
Ohio,	1912	47,234	136	2.88	34,444,291	3.95	......
Ohio,	1913	48,420	165	3.41	36,285,468	4.55	......
Totals and averages,	......	338,062	951	2.81	221,905,580	4.29	656

COMPARATIVE TABLE OF ACCIDENTS

Pennsylvania—United States, 1899-1903-1908-1913

In 1899 the number of employes inside and outside the mines of the United States, not including the bituminous mines of Pennsylvania, was 319,064. The production of coal was 180,674,249 tons. The number of lives lost was 958 or 3.00 per 1,000 employes. The number of lives lost per 1,000,000 tons produced was 5.30 and for every life lost 188,595 tons were produced.

In 1899 the number of employes inside and outside the bituminous mines of Pennsylvania was 91,571. The production of coal was 73,066,943 tons. The number of lives lost was 258 or 2.82 per 1,000 employes. The number of lives lost per 1,000,000 tons produced was 3.53 and for every life lost 283,205 tons were produced.

In 1903 the number of employes inside and outside the mines of the United States was 414,515, an increase of over 29 per cent. over 1899. The production was 253,642,434 tons, an increase of over 40 per cent. The number of lives lost was 1,350, an increase of over 40 per cent.

In 1903 the number of employes inside and outside the bituminous mines of Pennsylvania was 151,745, an increase of over 65 per cent. over 1899. The production was 103,713,982 tons, an increase of over 41 per cent. The number of lives lost was 402, an increase of over 55 per cent.

In 1908 the number of employes inside and outside the mines of the United States was 508,598, an increase of 59 per cent. over 1899. The production was 300,905,323 tons, an increase of 66 per cent. The number of lives lost was 1,877, an increase of over 95 per cent.

In 1908 the number of employes inside and outside the bituminous mines of Pennsylvania was 181,840, an increase of 98 per cent. over 1899. The production was 114,937,375 tons, an increase of 57 per cent. The number of lives lost was 572, an increase of 121 per cent.

In 1913 the number of employes inside and outside the mines of the United States was 538,446, an increase of 68 per cent. over 1899. The production was 397,034,341 tons, an increase of 119 per cent. The number of lives lost was 2,174, an increase of 127 per cent.

In 1913 the number of employes inside and outside the bituminous mines of Pennsylvania was 189,909, an increase of 107 per cent. over 1899. The production was 172,965,659 tons, an increase of 137 per cent. The number of lives lost was 611, an increase of 137 per cent.

During the fifteen years, 1899-1913, inclusive, the number of employes inside and outside the mines of the United States was 6,833,252; the production was approximately 4,284,177,295 tons; the number of lives lost was 26,105, or 3.82 per 1,000 employes and 6.09 per 1,000,000 tons produced. The production per life lost was 164,113 tons.

During the same period the number of employes in the bituminous mines of Pennsylvania was 2,398,353; the production was

1,809,495,770 tons; the number of lives lost was 7,169 or 2.99 per 1,000 employes and 3.96 per 1,000,000 tons produced. The production per life lost was 252,406 tons.

If the fatal accidents in the bituminous mines of Pennsylvania had averaged the same as in the United States, the number would have been 9,161 instead of 7,169, an increase of 1,992. If the fatal accidents in the United States had averaged the same as in Pennsylvania, the number would have been 20,431 instead of 26,105, a decrease of 5,674.

PENNSYLVANIA—UNITED STATES, 1899-1913, INCLUSIVE

Years	United States						Pennsylvania					
	Production	Employes	Fatal accidents	Lives lost per 1,000 employes	Lives lost per 1,000,000 tons produced	Production per life lost	Production	Employes	Fatal accidents	Lives lost per 1,000 employes	Lives lost per 1,000,000 tons produced	Production per life lost
1899,	180,674,249	319,064	958	3.00	5.30	188,595	73,066,948	91,571	258	2.82	3.53	283,205
1900,	190,365,665	339,846	1,227	3.61	6.45	155,147	79,318,362	108,735	265	2.44	3.34	299,315
1901,	212,385,580	368,048	1,248	3.39	5.88	170,181	80,914,236	117,501	301	2.56	3.72	268,818
1902,	203,061,317	382,586	1,439	3.76	7.08	141,112	98,529,122	135,611	456	3.36	4.63	216,072
1903,	253,642,434	414,515	1,350	3.26	5.32	187,883	103,713,982	151,745	402	2.65	3.88	257,995
1904,	252,216,231	437,946	1,468	3.35	5.82	171,809	99,600,167	155,747	536	3.44	5.38	185,821
1905,	273,361,121	461,094	1,753	3.80	6.41	155,939	119,361,514	164,941	479	2.90	4.01	249,189
1906,	284,624,289	467,852	1,639	3.50	5.76	173,657	129,532,989	172,928	477	2.76	3.68	271,558
1907,	330,804,377	497,371	2,391	4.80	7.22	138,354	149,559,047	183,121	806	4.40	5.39	185,557
1908,	300,905,323	508,598	1,877	3.69	6.23	160,312	114,937,375	181,840	572	3.15	4.98	200,939
1909,	324,608,921	480,624	2,162	4.50	6.66	150,143	136,205,695	185,921	506	2.72	3.71	269,181
1910,	352,825,520	531,542	2,301	4.33	6.52	153,335	148,770,858	193,488	539	2.79	3.62	276,013
1911,	354,031,339	545,695	2,204	4.04	6.22	160,631	142,189,329	182,653	515	2.82	3.62	276,096
1912,	373,636,063	540,020	1,914	3.54	5.12	195,212	160,830,492	182,642	446	2.44	2.77	360,606
1913,	*397,034,341	*538,446	*2,174	4.04	5.48	182,628	172,965,659	189,909	611	3.22	3.53	283,086
Totals and averages,	4,284,177,295	6,833,252	26,105	3.82	6.09	164,113	1,809,495,770	2,398,353	7,169	2.99	3.96	252,406

*Estimated.

CAUSES AND LOCATION OF FATAL ACCIDENTS INSIDE THE MINES

The table herewith shows that 561 lives were lost inside of the mines, of which number 317 or 56.51 per cent. were lost by falls of coal, slate and roof.

At the faces of rooms 37 lives were lost by falls of coal, 97 by falls of slate and 60 by falls of roof; on entries while timbering and repairing 4 lives were lost by falls of slate and 12 by falls of roof; while removing pillars 13 lives were lost by falls of coal, 38 by falls of slate and 47 by falls of roof; 5 lives were lost by falls of roof and 3 by falls of slate on entry while riding on cars; 1 life was lost by fall of slate on slope. Of the 317 persons killed by falls, 194 or 61.20 per cent. were killed at face of rooms; 24 or 7.57 per cent. on entries, of whom 16 were killed while timbering and repairing and 8 while riding on cars; 98 or 30.91 per cent. while removing pillars and 1 or .32 per cent. on slope.

The number killed by mine cars inside was 104 or 18.54 per cent. of the total inside accidents as against 106 in 1912; 81 or 77.88 per cent. were killed on entries, 8 or 7.69 per cent. in rooms, 10 or 9.62 per cent. on slopes and 5 or 4.81 per cent. at foot of shaft.

The number killed on entries is inexcusably large and can be charged to carelessness.

205 miners were killed by falls, as against 173 in 1912, an increase of 18.50 per cent.; 117 or 57.07 per cent. of whom were killed at the face of workings; 85 or 41.46 per cent. while removing pillars; 2 or .98 per cent. by falls on entries while timbering and repairing and 1 or .49 per cent. on slope. Of the 205 fatalities, 148 or 72.19 per cent. were due to the carelessness of the victims, 2 or .98 per cent. due to the carelessness of others and 55 or 26.83 per cent. due to unavoidable accidents.

22 miners were killed by mine cars: 15 or 68.18 per cent. on entries, 6 or 27.27 per cent. in rooms and 1 or 4.55 per cent. at foot of shaft. Of the 22 fatalities, 18 or 81.82 per cent. were due to the carelessness of the victims, 1 or 4.55 per cent. due to the carelessness of others and 3 or 13.63 per cent. were unavoidable.

9 miners were killed by electricity on entries through their own carelessness.

1 miner was killed by explosion of powder through his own carelessness.

1 miner was killed by falling into shaft through his own carelessness.

1 miner was killed by falling against the gob; the accident was unavoidable.

1 miner was killed by cage at foot of shaft; the accident was unavoidable.

2 miners were killed by being struck by posts; the accidents were unavoidable.

12 miners were killed by an explosion of gas and dust; responsibility not defined.

The total number of miners killed was 254 as against 215 during

1912, an increase of 18.14 per cent., of whom 177 or 69.68 per cent. were killed through their own neglect or carelessness, 3 or 1.18 per cent. through the carelessness of others, 62 or 24.41 per cent. through unavoidable accidents and 12 or 4.73 per cent. responsibility not defined.

63 loaders were killed by falls, as against 30 during 1912, 57 or 90.48 per cent. of whom were killed at the face of workings and 6 or 9.52 per cent. while removing pillars.

Of the 63 fatalities among loaders by falls, 48 or 76.19 per cent. were due to the carelessness or ignorance of the victims and 15 or 23.81 per cent. to unavoidable accidents.

12 loaders were killed by cars, 8 or 66.66 per cent. of whom were killed on entries, 2 or 16.67 per cent. in rooms and 2 or 16.67 per cent. at foot of shaft.

Of the 12 loaders killed by cars, 8 or 66.67 per cent. were due to the carelessness of the victims, 1 or 8.33 per cent. to the carelessness of others and 3 or 25.00 per cent. to unavoidable accidents.

5 loaders were killed by electricity on entries, 4 or 80.00 per cent. through their own carelessness, and 1 or 20.00 per cent. through the carelessness of others.

1 loader was killed by explosion of blast from an adjoining place through the carelessness of others.

1 loader was killed by being struck by a post through his own carelessness.

1 loader was killed by falling down shaft through his own carelessness.

51 loaders were killed by an explosion of gas and dust, responsibility not defined.

The total number of loaders killed was 134, of whom 62 or 46.27 per cent. lost their lives through their own carelessness, 3 or 2.24 per cent. through the carelessness of others, 18 or 13.43 per cent. through unavoidable accidents and 51 or 38.06 per cent. responsibility not defined.

28 machine runners and scrapers were killed; 13 or 46.43 per cent. by falls at face of workings; 2 or 7.14 per cent. while removing pillars; 4 or 14.29 per cent. by machinery; 3 or 10.71 per cent. by electricity on entry and 6 or 21.43 per cent. by explosions of gas and dust.

Of the 28 machine runners and scrapers killed, 16 or 57.14 per cent. were killed through their own carelessness, 6 or 21.43 per cent. through unavoidable accidents and 6 or 21.43 per cent. responsibility not defined.

41 drivers and runners lost their lives; 5 or 12.19 per cent. by falls on entries while riding on cars; 1 or 2.44 per cent. by falls at pillar work; 22 or 53.66 per cent. by cars on entries; 1 or 2.44 per cent. by cars on slope; 2 or 4.88 per cent. by explosions of powder on entries and 10 or 24.39 per cent. by explosions of gas and dust.

Of the 41 drivers and runners killed, 12 or 29.27 per cent. lost their lives through their own carelessness, 1 or 2.44 per cent. through the carelessness of others, 18 or 43.90 per cent. through unavoidable accidents and 10 or 24.39 per cent. responsibility not defined.

40 company men were killed: 4 or 10.00 per cent. by falls at face of workings; 6 or 15.00 per cent. by falls on entries while timbering and repairing; 1 or 2.50 per cent. by fall while removing pillars;

3 or 7.50 per cent. by cars on entries; 5 or 12.50 per cent. by cars on slopes; 1 or 2.50 per cent. by cars at foot of shaft; 1 or 2.50 per cent. by blast at face; 1 or 2.50 per cent. by being struck by rope on entry; 1 or 2.50 per cent. by falling down shaft; 2 or 5.00 per cent. by electricity on entries and 15 or 37.50 per cent. by explosions of gas and dust.

Of the 40 company men killed, 16 or 40.00 per cent. lost their lives through their own carelessness, 9 or 22.50 per cent. through unavoidable accidents and 15 or 37.50 per cent. responsibility not defined.

64 other persons were killed: 5 mine foremen, 3 assistant mine foremen, 1 fire boss, 13 motormen, 1 shot firer, 1 pumpman, 2 timbermen, 9 laborers, 1 rib boss, 4 door boys and helpers, 4 snappers, 1 engineer, 2 spraggers, 1 trip rider, 7 brakemen, 1 rope rider, 1 trapper, 1 cager, 1 road boss, 1 shift boss, 1 blacksmith, 1 trackman, 1 switch tender, and 1 electrician.

Of the 64 persons killed, 42 or 65.63 per cent. lost their lives through their own carelessness, 4 or 6.25 per cent. through the neglect or carelessness of others, 14 or 21.87 per cent. through unavoidable accidents and 4 or 6.25 per cent. responsibility not defined.

Of the 561 lives lost inside of the mines, 325 or 57.93 per cent. are attributable to neglect or carelessness of the victims themselves, 11 or 1.96 per cent. to the carelessness of others, 127 or 22.64 per cent. due to accidents beyond the control of the victims themselves and 98 or 17.47 per cent. responsibility not defined.

CAUSES AND LOCATION OF FATAL ACCIDENTS, BY DISTRICTS, 1913

Inside	Districts																												Totals
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	
Falls of coal at face, ...	1	2	1	..	..	1	..	1	..	1	1	1	2	3	4	1	1	3	1	1	2	1	....	5	3	....	1	2	38
Falls of coal at pillar work, ...	....	..	..	2	..	..	..	1	..	....	1	1	1	....	1	1	....	....	....	....	1	1	....	....	1	....	1	....	12
Falls of slate at face,..	4	8	..	1	..	6	3	..	2	....	2	7	3	3	....	4	8	2	6	3	10	3	2	3	11	5	....	1	97
Falls of slate on entry while timbering and repairing, ...	....	2	..	..	1	..	..	..	..	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....	....	....	4
Falls of slate on entry while riding on cars,..	....	1	..	..	..	..	..	..	..	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	1	....	....	3
Falls of slate at pillar work, ...	1	7	..	..	2	2	..	1	2	....	....	1	....	....	....	3	....	1	2	....	2	1	3	3	2	1	4	....	38
Falls of slate on slope,..	....	..	..	..	..	..	..	..	..	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....	1
Falls of roof at face, ..	1	..	3	5	1	1	4	..	..	2	2	2	....	3	6	2	3	1	4	8	2	1	....	2	2	3	...	1	59
Falls of roof on entry while timbering and repairing, ...	....	..	2	..	..	..	..	..	..	....	1	1	1	....	....	4	....	....	1	1	....	....	....	1	....	...	....	....	12
Falls of roof on entry while riding on cars,.	....	1	..	..	.	.	..	..	1	....	1	....	....	....	....	...	....	....	....	....	....	1	1	....	....	....	....	....	5
Falls of roof at pillar work, ...	....	6	..	..	2	3	..	..	4	....	4	....	....	1	1	4	....	....	2	5	2	3	....	2	2	4	2	1	48
Cars on entry, ...	3	4	..	1	2	1	6	..	6	1	3	2	3	8	4	7	2	....	3	2	3	2	5	4	4	2	1	1	82
Cars in room, ...	....	..	..	..	..	..	..	..	..	....	....	....	....	....	2	....	1	....	1	....	3	....	....	1	....	....	....	....	8
Cars on slope, ...	....	1	..	..	1	..	..	..	..	....	2	....	....	....	....	....	....	....	2	2	1	....	....	....	....	....	....	....	9
Cars near foot of shaft,	1	..	..	1	..	..	..	..	..	....	....	....	....	....	....	1	1	....	1	....	....	....	....	....	....	....	....	....	5
Explosions of gas and dust, ...	97	..	..	..	..	..	..	..	..	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	97
Explosions of powder and dynamite, ...	....	..	..	..	..	..	..	1	..	....	....	....	....	....	2	....	....	....	....	....	....	....	....	....	....	....	....	....	3
Explosions of blast at face, ...	....	..	1	..	..	..	..	..	1	....	....	....	....	....	...	....	....	....	....	....	....	....	....	....	....	....	....	....	2
Explosions of blast in tunnel, ...	....	..	..	..	..	..	..	..	..	....	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	...	1
Falling into shafts, ...	....	..	..	..	..	..	..	..	1	....	....	....	....	....	....	....	....	1	....	1	....	....	....	....	....	...	....	1	4
Machinery, ...	....	..	1	..	..	..	..	..	..	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	1	....	1	4
Electricity on entry, ..	1	..	..	..	..	1	2	..	..	1	....	1	....	1	....	....	....	3	2	....	1	....	1	3	2	3	....	....	21
Struck by timber, ...	....	1	..	..	..	..	..	..	1	....	....	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	3
Struck by cage, ...	....	..	..	..	..	..	..	..	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....	2

Struck by a rope, ...	....	..	..	..	..	..	..	..	..	....	....	....	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	1
Falling against gob, ...	....	..	..	..	..	..	..	..	..	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....	....	....	....	1
Cause unknown, ...	....	..	..	..	1	..	..	..	..	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1
Totals, ...	109	33	8	10	10	15	15	4	19	5	16	16	10	17	20	27	16	11	26	24	32	14	14	25	28	20	9	8	561

Outside	Districts																												Totals
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	
Cars, ...	1	1	..	..	..	..	2	..	1	....	2	....	1	3	....	2	1	....	2	....	....	2	4	1	1	....	1	1	26
Machinery, ...	....	..	..	..	..	..	..	..	..	....	....	....	....	....	....	3	1	....	....	....	1	....	....	....	1	....	....	....	6
Electricity, ...	....	1	..	..	..	1	1	..	..	....	....	....	....	....	....	1	1	....	....	....	....	....	....	....	....	1	....	....	6
Struck by a rope, ...	....	..	..	..	..	..	..	..	..	....	....	....	1	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	2
Falling from trestle, ...	....	1	..	..	..	..	..	..	..	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1
Falling off platform	....	..	..	..	..	..	..	..	..	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	1
Falling from ladder, ...	....	..	..	..	..	..	..	..	..	....	....	....	....	....	...	....	....	....	....	....	....	....	....	....	....	....	....	1	1
Falling down shaft, ...	....	..	..	..	..	..	..	..	..	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1
Explosion of gasoline, ..	....	..	..	..	..	..	..	..	..	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	1
Explosion of powder, ...	....	1	..	..	..	..	..	..	..	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1
Burned by oven door, .	....	..	..	..	..	..	..	..	..	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1
Bursting of steam line,..	....	..	..	..	..	..	..	..	..	....	....	....	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	1
Wagon upsetting, ...	....	..	..	..	..	..	..	..	..	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....	....	....	1
Drowned, ...	....	..	..	..	..	..	..	..	..	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1
Totals, ...	1	4	..	..	..	1	3	..	1	....	3	....	3	4	....	7	3	....	2	1	3	2	5	1	2	1	1	2	50
Grand totals inside and outside, ...	110	37	8	10	10	16	18	4	20	5	19	16	13	21	20	34	19	11	28	25	35	16	19	26	30	21	10	10	611

PRODUCTION AND ACCIDENTS

Tables of Honor

The Tables of Honor herewith show the companies that have during a period of years conducted their mines without a single fatal accident.

Table No. 1 shows the companies that worked 14 years without any fatal accidents. The production ranged from 449,185 tons to 1,535,574 tons. All the companies but two produced over 500,000 tons, each, during that period.

Table No. 2 shows the companies that worked 13 years without any fatal accidents. The production ranged from 421,263 tons to 1,399,086 tons.

Table No. 3 shows the companies that worked 11 years without any fatal accidents. The production ranged from 529,337 tons to 1,126,367 tons.

Table No. 4 shows the companies that had no fatal accidents during 1913. The production ranged from 312,092 tons to 1,485,491 tons. Some of the operations are in territory where the mines are considered the most dangerous, as in the counties of Allegheny, Cambria, Fayette, Washington and Westmoreland. Attention is called to the records of these companies, with the hope that others may be induced to make an effort to safeguard more thoroughly the lives of the employes in and about the mines.

TABLE OF HONOR NO. 1.—Companies that had no fatal accidents, 1900-1913, inclusive

Companies	Counties	Production
State Line Coal Company,	Beaver,	1,535,574
John Langdon,	Bedford,	1,355,743
Colonial Iron Company,	Bedford,	1,282,507
S. Hagarty's Sons,	Clearfield,	983,332
W. B. Skelly,	Westmoreland,	971,326
Gilpin Coal Company,	Armstrong,	868,778
Ghem Coal Company,	Centre,	851,245
Maher Coal and Coke Company,	Armstrong,	824,073
Bulah Coal Company,	Clearfield,	820,652
Blair Brothers Coal Company,	Centre,	610,459
Hamilton Coal Mining Company,	Indiana,	583,841
Henrietta Coal Company,	Clearfield,	571,065
Nellie Coal Company,	Butler,	481,808
Cambria and Clearfield Coal and Coke Company,	Clearfield,	449,185

TABLE OF HONOR NO. 2.—Companies that had no fatal accidents, 1901-1913, inclusive

Companies	Counties	Production
Somerset Mining Company,	Somerset,	1,399,086
Ellsworth-Dunham Coal Company,	Indiana,	1,087,954
Veteran Coke Company,	Westmoreland,	706,875
Blairsville Coke Company, Limited,	Indiana,	545,488
Cochran Brothers,	Fayette,	448,882
E. A. Humphries Coal and Coke Company,	Westmoreland,	421,263

TABLE OF HONOR NO. 3.—Companies that had no fatal accidents 1903-1913, inclusive

Companies	Counties	Production
Penn Coke Company,	Fayette,	1,126,367
Shade Coal Mining Company,	Somerset,	859,838
Hillsdale Coal and Coke Company,	Indiana,	652,566
Fort Ligonier Coal Company,	Westmoreland,	529,337

TABLE OF HONOR NO. 4.—Companies that had no fatal accidents, 1913

Companies	Counties	Production	Employees Inside
Clearfield Bituminous Coal Corporation,	Cambria, Clearfield, Indiana,	1,485,491	1,461
Hostetter-Connellsville Coke Company,	Westmoreland,	767,853	332
Consolidated Connellsville Coke Company,	Fayette,	743,336	473
Quemahoning Coal Company,	Somerset,	631,480	504
Peale, Peacock and Kerr, Incorporated,	Clearfield,	595,797	622
Corona Coal and Coke Company and H. B. Swoope Company,	Clearfield,	573,241	526
Cascade Coal and Coke Company,	Clearfield, Jefferson,	539,285	618
Taylor Coal and Coke Company,	Fayette,	479,872	328
Vinton Colliery Company,	Cambria,	428,101	468
Russell Coal Company,	Indiana,	426,212	466
Loyal Hanna Coal and Coke Company,	Cambria, Somerset, Westmoreland,	416,971	369
Sterling Coal Company,	Cambria,	407,043	417
Lincoln Coal and Coke Company,	Fayette,	404,500	263
Morris Run Coal Mining Company,	Tioga,	396,943	660
Acme Gas Coal Company,	Clarion,	380,822	374
Portage Coal Mining Company,	Cambria,	376,324	363
Moshannon Coal Mining Company,	Centre, Clearfield,	335,417	335
Stineman Coal and Coke Company,	Cambria,	314,411	347
Nant Y Glo Coal Mining Company,	Cambria,	312,092	330
Totals,		10,008,641	9,256

COMPANIES THAT PRODUCED 300,000 TONS OR OVER FOR EACH FATAL ACCIDENT INSIDE, 1913

Companies	Counties	Production	Employes inside	Fatal accidents inside	Production per life lost inside	Lives lost inside per 1,000 employes	Lives lost inside per 1,000,000 tons produced
H. C. Frick Coke Company,	Fayette, Westmoreland,	18,097,088	10,460	36	502,695	3.44	1.99
Pittsburgh Coal Company,	Allegheny, Fayette, Washington, Westmoreland,	13,125,416	13,770	36	364,595	2.61	2.74
Pennsylvania Coal and Coke Corporation,	Blair, Cambria, Clearfield, Indiana,	3,419,304	3,724	10	341,930	2.69	2.92
Westmoreland Coal Company,	Westmoreland,	2,939,685	2,201	8	367,461	3.63	2.72
Pittsburgh-Westmoreland Coal Company,	Washington, Westmoreland,	2,145,638	2,227	3	715,213	1.35	1.40
W. J. Rainey,	Fayette, Westmoreland,	1,977,436	1,271	6	329,573	4.72	3.03
Buffalo and Susquehanna Coal and Coke Company,	Armstrong, Clearfield, Indiana,	1,834,880	1,602	3	611,627	1.87	1.63
Ellsworth Collieries Company,	Washington,	1,822,306	1,519	6	303,718	3.95	3.29
Pittsburgh Gas Coal Company,	Indiana,	1,697,815	1,326	5	339,563	3.77	2.94
Penn Gas Coal Company,	Westmoreland,	1,555,104	883	3	518,368	3.40	1.93
Cambria Steel Company,	Cambria,	1,500,854	1,357	1	1,500,354	.74	.67
Allegheny River Mining Company,	Armstrong, Jefferson,	1,472,683	1,425	3	490,894	2.11	2.04
Washington Coal and Coke Company,	Fayette,	1,425,291	844	1	1,425,291	1.18	.70
New York and Cleveland Gas Coal Company,	Allegheny, Westmoreland,	1,310,333	1,217	1	1,310,333	.82	.76
Cowanshannock Coal and Coke Company,	Armstrong,	1,250,269	1,091	2	625,134	1.83	1.60
Northwestern Mining and Exchange Company,	Clearfield, Elk, Jefferson,	1,185,287	1,408	2	592,643	1.43	1.69

Shawmut Mining Company,	Elk, Jefferson,	1,028,986	1,086	2	514,493	1.83	1.94
National Mining Company,	Allegheny,	980,963	823	2	490,481	2.43	2.04
Oliver and Snyder Steel Company,	Fayette,	924,129	789	3	308,043	4.06	3.24
Carnegie Coal Company,	Allegheny, Washington, Westmoreland,	900,689	1,178	1	900,689	.86	1.11
Diamond Coal and Coke Company,	Washington,	846,794	666	1	846,794	1.50	1.18
Republic Iron and Steel Company,	Fayette,	715,597	524	1	715,597	1.91	1.40
Ebensburg Coal Company,	Cambria,	644,441	477	1	644,441	2.10	1.55
Tower Hill Connellsville Coke Company,	Fayette,	621,278	477	1	621,278	3.24	1.61
Connellsville Central Coke Company,	Fayette,	555,644	307	1	555,644	3.26	1.80
Henderson Coal Company,	Westmoreland,	554,343	379	1	554,343	2.64	1.80
New Alexandria Coke Company,	Westmoreland,	549,387	248	1	549,387	4.03	1.82
Blaine Coal Company,	Allegheny,	506,269	521	1	506,269	1.92	1.98
Saltsburg Coal Company,	Indiana,	503,470	403	1	503,470	2.48	1.99
Rock Hill Iron and Coal Company,	Huntingdon,	497,971	614	1	497,971	1.63	2.01
Barnes and Tucker Company,	Cambria,	462,386	562	1	462,386	1.78	2.16
Commercial Coal Mining Company,	Cambria,	453,552	461	1	453,552	3.17	2.20
Morrisdale Coal Company,	Clearfield,	451,967	502	1	451,967	1.99	3.21
Manor Gas Coal Company,	Westmoreland,	449,473	331	1	449,473	3.02	2.22
Valley Camp Coal Company,	Westmoreland,	425,414	262	1	425,414	3.82	2.35
Valley Smokeless Coal Company,	Cambria, Westmoreland,	416,261	424	1	416,261	2.86	2.40
Brier Hill Coke Company,	Fayette,	381,990	388	1	381,990	3.58	2.62
Orient Coke Company,	Fayette,	372,794	272	1	372,794	3.68	2.68
Crescent Coal Company,	Allegheny,	362,331	350	1	362,331	2.85	2.76
Naomi Coal Company,	Fayette,	354,435	271	1	354,435	3.69	2.82
Sharon Coal and Limestone Company,	Butler, Lawrence, Mercer,	350,289	570	1	350,289	1.75	2.85
Warner-Youghiogheny Coal Company,	Fayette,	348,318	304	1	348,318	3.29	2.87
Lackawanna Coal and Coke Company,	Indiana,	341,222	355	1	341,222	2.82	2.98
Lehigh Valley Coal Company,	Centre,	325,959	330	1	325,959	3.08	3.07
Sonman Shaft Coal Company,	Cambria,	318,260	422	1	318,260	2.37	3.14
Kettle Creek Coal Mining Company,	Clinton,	304,841	288	1	304,841	3.47	3.28
Anita Coal Mining Company,	Jefferson,	304,405	249	1	304,405	4.02	3.28
Totals and averages,		73,013,706	61,082	161	453,501	2.64	2.21

ALL COMPANIES THAT HAD FATAL ACCIDENTS INSIDE OR OUTSIDE THEIR MINES, CAUSES OF ACCIDENTS, FATALITIES PER 1,000 EMPLOYES AND PER 1,000,000 TONS PRODUCED, 1913

Companies	Production	Employes inside	Causes of fatal accidents inside				Total fatal accidents inside	Fatalities inside per 1,000 employes	Fatalities inside per 1,000,000 tons produced	Employes outside	Causes of fatal accidents outside				Total fatal accidents outside	Grand total fatal accidents inside and outside	Grand total employes inside and outside	Fatalities inside and outside per 1,000 employes	Fatalities inside and outside per 1,000,000 tons produced
			Falls	Cars	Gas and dust	Miscellaneous					Cars	Machinery	Electricity	Miscellaneous					
H. C. Frick Coke Company,	18,097,088	10,460	22	11	....	3	36	3.44	1.99	6,461	4	....	1	2	7	43	16,921	2.54	2.38
Pittsburgh Coal Company,	13,125,416	13,770	25	7	....	4	36	2.61	2.74	1,866	2	....	1	....	3	39	15,636	2.49	2.97
Monongahela River Consolidated Coal and Coke Company,	8,016,945	7,146	14	7	97	1	119	16.65	14.84	918	1	....	....	1	2	121	8,064	15.00	15.09
Berwind-White Coal Mining Company,	4,289,406	3,932	9	5	....	4	18	4.58	4.20	283	1	....	....	....	1	19	4,215	4.51	4.43
Keystone Coal and Coke Company,	4,060,312	2,863	13	1	....	...	14	4.89	3.45	610	1	....	....	....	1	15	3,473	4.32	3.69
Rochester and Pittsburgh Coal and Iron Company,	3,484,172	3,028	11	3	....	1	15	4.95	4.31	768	1	....	....	....	1	16	3,796	4.22	4.59
Pennsylvania Coal and Coke Corporation,	3,419,804	3,724	7	1	....	2	10	2.69	2.92	515	....	....	....	....	....	10	4,239	2.36	2.92
Vesta Coal Company,	2,962,326	2,067	4	7	....	1	12	5.81	4.05	310	....	....	....	1	1	13	2,377	5.47	4.39
Westmoreland Coal Company,	2,939,685	2,201	3	3	....	2	8	3.63	2.72	264	....	....	....	....	....	8	2,465	3.25	2.72
Pittsburgh Terminal Railroad and Coal Company,	2,808,189	3,066	7	3	....	....	10	3.26	3.56	377	....	1	1	....	2	12	3,443	3.49	4.27
Jamison Coal and Coke Company,	2,517,940	1,385	12	3	....	....	15	10.83	5.96	789	....	....	....	....	....	15	2,174	6.90	5.96
Jefferson and Clearfield Coal and Iron Company,	2,273,861	2,143	8	1	....	2	11	5.13	4.84	528	....	....	....	....	...	11	2,671	4.12	4.84
Pittsburgh-Westmoreland Coal Company,	2,145,638	2,227	2	1	....	....	3	1.35	1.40	387	1	....	....	....	1	4	2,614	1.53	1.86
W. J. Rainey,	1,977,436	1,271	4	2	....	....	6	4.72	3.03	812	1	1	....	....	2	8	2,083	3.84	4.05
Consolidation Coal Company,	1,952,760	1,659	7	....	....	....	7	4.19	3.58	208	...	....	....	....	....	7	1,867	3.75	3.58
Buffalo and Susquehanna Coal and Coke Company,	1,834,880	1,602	3	....	....	....	3	1.87	1.63	197	1	....	....	....	1	4	1,799	2.22	2.18
Ellsworth Collieries Company,	1,822,305	1,519	5	1	....	....	6	3.95	3.29	475	1	....	....	....	1	7	1,994	3.51	3.84
Pittsburgh Gas Coal Company,	1,697,815	1,326	4	1	....	....	5	3.77	2.94	380	....	1	....	....	1	6	1,706	3.52	3.53
Pittsburgh-Buffalo Company,	1,697,428	1,685	7	1	....	....	8	4.75	4.71	211	....	....	....	1	1	9	1,896	4.75	5.30
Penn Gas Coal Company,	1,555,104	883	2	1	....	....	3	3.40	1.93	176	1	....	....	....	1	4	1,059	7.78	2.57
Cambria Steel Company,	1,500,854	1,357	1	...	....	....	1	.74	.67	410	....	....	....	....	....	1	1,767	.57	.67
Allegheny River Mining Company,	1,472,683	1,425	2	1	....	....	3	2.11	2.04	164	....	....	....	....	....	3	1,589	1.89	2.04
Washington Coal and Coke Company,	1,425,291	844	....	1	....	....	1	1.18	.70	466	....	....	....	....	....	1	1,310	.76	.70
Youghiogheny and Ohio Coal Company,	1,415,343	1,224	3	2	....	....	5	4.08	3.53	173	1	....	....	....	1	6	1,397	4.29	4.24
New York and Cleveland Gas Coal Company,	1,310,333	1,217	....	1	....	....	1	.82	.76	1.35	....	....	....	....	....	1	1,352	.74	.76
Cowanshannock Coal and Coke Company,	1,250,289	1,091	1	....	....	1	2	1.83	1.60	155	....	....	....	1	1	3	1,246	2.41	2.40

Northwestern Mining and Exchange Company,	1,185,287	1,408	1	1	....	....	2	1.43	1.69	347	....	....	....	....	....	2	1,650	1.21	1.69
Ocean Coal Company,	1,122,151	791	5	....	....	1	6	7.59	5.35	115	....	....	....	....	....	6	908	6.62	5.35
United Coal Company,	1,097,663	1,032	...	....	....	....	....	......	......	124	....	....	....	1	1	1	1,156	.87	.91
Latrobe Connellsville Coal and Coke Company,	1,066,617	948	3	2	....	....	5	5.27	4.69	268	....	....	....	1	1	6	1,216	4.93	5.63
Shawmut Mining Company,	1,023,996	1,085	2	....	....	....	2	1.83	1.94	141	....	....	....	....	....	2	1,226	1.63	1.94
National Mining Company,	980,963	823	2	....	....	...	2	2.43	2.04	143	....	....	....	....	....	2	966	2.07	2.04
Oliver and Snyder Steel Company,	924,129	739	2	....	....	1	3	4.06	3.24	389	....	....	....	....	....	3	1,128	2.66	3.24
Jenner Quemahoning Coal Company,	918,259	715	3	....	....	1	4	5.59	4.36	127	....	....	....	....	....	4	842	4.75	4.36
Ford Collieries Company,	916,157	517	....	....	....	....	....	......	......	64	1	....	....	....	1	1	581	1.72	1.09
Carnegie Coal Company,	900,689	1,178	....	1	....	....	1	.85	1.11	99	....	....	....	....	....	1	1,277	.78	1.11
Diamond Coal and Coke Company,	846,794	666	1	....	....	....	1	1.50	1.18	69	....	....	....	....	....	1	735	1.36	1.18
Republic Iron and Steel Company,	715,597	524	....	1	....	....	1	1.91	1.40	329	....	...	....	....	....	1	853	1.17	1.40
Thompson Connellsville Coke Company,	694,792	467	1	2	....	....	3	6.42	4.32	171	....	1	....	1	2	5	638	7.84	7.20
Penn Mary Coal Company,	673,511	618	4	....	....	....	4	6.47	5.94	72	....	....	....	....	....	4	690	5.80	5.94
Ebensburg Coal Company,	644,441	477	1	...	....	....	1	2.10	1.55	72	...	....	....	....	....	1	549	1.82	1.55
Tower Hill Connellsville Coke Company,	621,278	447	...	1	....	....	1	2.24	1.61	284	1	....	....	....	1	2	731	2.74	3.22
Bessemer Coke Company,	606,818	608	2	1	....	....	3	4.93	4.94	243	...	....	....	....	...	3	851	3.53	4.94
Pittsburgh and Baltimore Coal Company,	606,576	510	1	1	....	2	4	7.84	6.59	77	1	....	....	...	1	5	587	8.52	8.24
Bessemer Coal and Coke Company,	590,402	404	2	2	....	....	4	9.90	6.78	74	1	....	....	1	2	6	478	12.55	10.16
Connellsville Central Coke Company,	555,644	307	1	....	....	....	1	3.26	1.80	166	....	....	....	....	....	1	473	2.11	1.80
Henderson Coal Company,	554,343	379	1	....	....	....	1	2.64	1.80	44	....	....	....	....	....	1	423	2.36	1.80
New Alexandria Coke Company,	549,337	248	1	....	....	....	1	4.03	1.82	35	....	....	....	....	....	1	283	3.53	1.82
Pittsburgh and Erie Coal Company,	542,315	485	2	....	....	....	2	4.12	3.69	62	....	....	....	....	....	2	547	3.66	3.69
Meadow Lands Coal Company,	541,744	587	2	....	....	3	5	8.52	9.23	52	....	....	....	....	....	5	639	7.82	9.23
Logan Coal Company,	522,311	539	2	....	....	....	2	3.71	3.83	64	....	....	....	....	....	2	603	3.32	3.83
Carrolltown Coal Company,	512,801	479	2	1	....	....	3	6.26	5.85	51	....	....	....	....	....	3	530	5.66	5.85
Blaine Coal Company,	506,269	521	1	....	....	....	1	1.92	1.98	52	....	....	....	....	....	1	573	1.75	1.98
Pittsburgh and Eastern Coal Company,	504,240	511	2	....	....	....	2	3.91	3.97	72	....	....	....	....	....	2	583	3.43	3.97
Saltsburg Coal Company,	503,470	403	1	....	....	....	1	2.48	1.99	85	....	....	....	....	....	1	438	2.28	1.99
Rock Hill Iron and Coal Company,	497,971	614	1	....	....	....	1	1.63	2.01	39	....	....	....	....	....	1	653	1.53	2.01
Brothers Valley Coal Company,	488,063	512	1	....	....	1	2	3.91	4.10	50	....	....	....	1	1	3	562	5.34	6.15
Somerset Smokeless Coal Company,	483,327	503	3	4	....	....	7	13.92	14.48	93	....	....	....	....	....	7	596	11.74	14.48
Barnes and Tucker Company,	462,386	562	...	1	....	....	1	1.78	2.16	49	....	....	....	....	....	1	611	1.64	2.16
Commercial Coal Mining Company,	453,552	461	1	....	....	....	1	2.17	2.20	65	....	....	....	....	....	1	526	1.90	2.20
Morrisdale Coal Company,	451,967	502	1	....	....	....	1	1.99	2.21	46	....	....	....	....	....	1	548	1.82	2.21
Manor Gas Coal Company,	449,473	331	1	....	....	....	1	3.02	2.22	38	....	....	....	....	....	1	369	2.71	2.22
Allegheny Coal Company,	440,514	321	1	2	....	....	3	9.35	6.81	65	....	....	....	....	....	3	386	7.77	6.81
Valley Camp Coal Company,	425,414	262	1	....	....	....	1	3.82	2.35	47	....	....	....	....	....	1	309	3.24	2.35
Valley Smokeless Coal Company,	416,261	424	...	....	....	1	1	2.36	2.40	58	....	....	....	....	....	1	477	2.10	2.40
Greenwich Coal and Coke Company,	408,110	455	1	3	....	....	4	8.79	9.92	60	....	....	....	....	....	4	515	7.76	9.92
Madeira-Hill Coal Mining Company,	394,104	488	1	1	....	....	2	4.10	5.07	50	....	....	....	....	....	2	538	3.72	5.07
Brier Hill Coke Company,	381,990	388	1	....	....	....	1	2.58	2.62	171	....	....	....	....	....	1	559	1.79	2.62
Sunshine Coal and Coke Company,	380,390	294	....	1	....	1	2	6.80	5.26	236	....	....	....	....	....	2	530	3.77	5.26
Orient Coke Company,	372,794	272	1	....	....	....	1	3.68	2.68	154	....	....	....	....	...	1	426	2.35	2.68
Crescent Coal Company,	362,331	350	....	1	....	....	1	2.85	2.76	42	...	...	....	....	...	1	392	2.55	2.76
W. Harry Brown,	358,920	220	1	1	....	....	2	9.09	5.57	114	1	1	....	....	2	4	334	11.98	11.14
Naomi Coal Company,	354,435	271	....	1	....	....	1	3.69	2.82	45	1	....	....	....	1	2	316	6.33	5.64
Atlantic Crushed Coke Company,	351,561	206	2	....	....	....	2	9.71	5.69	69	....	....	....	....	....	2	275	7.27	5.69
Cornell Coal Company,	351,473	228	....	....	....	....	....	......	......	30	1	....	....	....	1	1	258	3.88	2.85
Sharon Coal and Limestone Company,	350,289	570	....	....	....	1	1	1.75	2.85	63	....	....	....	....	....	1	633	1.58	2.85
Warner-Youghiogheny Coal Company,	348,318	304	1	....	....	....	1	3.29	2.87	29	....	....	....	....	....	1	333	3.00	2.87
Argyle Coal Company,	345,652	308	1	1	....	....	2	6.49	5.79	43	....	....	....	....	....	2	351	5.70	5.79
Lackawanna Coal and Coke Company,	341,222	355	....	....	....	1	1	2.82	2.93	70	....	....	....	....	....	1	425	2.35	2.93
Lehigh Valley Coal Company,	325,959	330	1	....	....	....	1	3.03	3.07	40	....	....	....	....	....	1	370	2.70	3.07

ALL COMPANIES THAT HAD FATAL ACCIDENTS INSIDE OR OUTSIDE THEIR MINES, CAUSES OF ACCIDENTS, FATALITIES PER 1,000 EMPLOYES AND PER 1,000,000 TONS PRODUCED, 1913—Continued

Companies	Production	Employes inside	Causes of fatal accidents inside				Total fatal accidents inside	Fatalities inside per 1,000 employes	Fatalities inside per 1,000,000 tons produced	Employes outside	Causes of fatal accidents outside				Total fatal accidents outside	Grand total fatal accidents inside and outside	Grand total employes inside and outside	Fatalities inside and outside per 1,000 employes	Fatalities inside and outside per 1,000,000 tons produced
			Falls	Cars	Gas and dust	Miscellaneous					Cars	Machinery	Electricity	Miscellaneous					
Sonman Shaft Coal Company,	318,260	422	1	....	....	....	1	2.37	3.14	36	....	....	....	....	....	1	458	2.18	3.14
Fayette Coal Company,	317,575	330	....	....	....	....	....	......	......	32	1	....	....	....	1	1	362	2.76	3.15
Kettle Creek Coal Mining Company,	304,841	288	....	1	....	....	1	3.47	3.28	56	....	....	....	....	....	1	344	2.91	3.28
Anita Coal Mining Company,	304,405	249	....	....	....	1	1	4.02	3.28	22	....	....	....	....	....	1	271	3.69	3.28
Keystone Coal Company,	294,154	206	1	....	....	....	1	4.85	2.40	22	....	....	....	....	....	1	228	4.39	2.40
Verner Coal and Coke Company,	280,752	338	1	2	....	....	3	8.88	10.69	23	....	....	....	....	....	3	361	8.31	10.69
Latrobe Coal Company,	277,074	206	....	....	....	....	....	......	......	87	....	....	....	1	1	1	293	3.41	3.61
Maryland Coal Company of Pennsylvania,	270,939	432	1	....	....	1	2	4.63	7.38	56	....	....	....	....	....	2	488	4.10	7.38
McFetridge Brothers,	262,367	187	...	....	....	1	1	5.35	3.81	27	....	....	....	....	....	1	214	4.67	3.81
Watkins Coal Company,	260,517	220	1	....	....	....	1	4.55	3.84	22	....	....	....	....	....	1	242	4.13	3.84
Fairmount Coal Company,	250,596	472	1	....	....	....	1	2.12	3.99	66	....	....	....	....	....	1	538	1.86	3.99
Clyde Coal Company,	237,099	232	1	....	....	....	1	4.31	4.22	32	....	1	....	....	1	2	264	7.58	8.44
Carbon Coal and Coke Company,	234,633	341	2	....	....	....	2	5.87	8.52	20	....	....	....	....	....	2	361	5.54	8.52
Graceton Coke Company,	222,407	173	1	....	....	....	1	5.78	4.50	132	....	....	....	....	....	1	305	3.28	4.50
Star Coal Company,	221,863	186	...	1	....	....	1	5.38	4.51	27	....	....	....	....	....	1	213	4.69	4.51
Greensburg Connellsville Coal and Coke Company,	209,248	125	2	....	....	....	2	16.00	9.56	67	....	....	....	....	....	2	192	10.42	9.56
J. H. Sanford Coal Company,	208,807	282	1	....	....	....	1	3.55	4.79	24	....	....	1	....	1	2	306	6.54	9.58
Cochran Coal Company,	206,454	160	...	2	....	....	2	12.50	9.69	16	....	....	....	....	....	2	176	11.36	9.69
Atlas Coke Company,	204,434	126	1	....	....	....	1	7.93	4.89	93	....	....	....	....	....	1	219	4.57	4.89
F. P. McFarland,	189,437	271	1	....	....	....	1	3.69	5.28	42	....	....	....	....	....	1	313	3.20	5.28
La Belle Coke Company,	187,639	120	1	....	....	....	1	8.33	5.33	77	....	....	....	....	....	1	197	5.08	5.33
Stauffer Quemahoning Coal Company,	182,036	187	1	....	....	....	1	5.35	5.49	27	....	....	....	....	....	1	214	4.67	5.49
Bulah Shaft Coal Company,	177,029	180	1	....	....	....	1	5.56	5.65	20	....	....	....	....	....	1	200	5.00	5.65
Struthers Coal and Coke Company,	167,364	153	3	1	....	....	4	26.14	23.90	40	....	....	1	....	1	5	193	25.91	29.88
Big Bend Coal Mining Company,	159,061	154	...	....	....	1	1	6.49	6.29	9	....	....	....	....	....	1	163	6.13	6.29
Mountain Coal Company,	156,138	204	2	....	....	....	2	9.80	12.81	15	....	....	....	....	....	2	219	9.13	12.81
Kiskiminetas Coal Company,	155,904	200	1	....	....	....	1	5.00	6.41	27	....	....	....	....	....	1	227	4.41	6.41
S. J. Mountz and Company,	152,169	150	2	....	....	....	2	13.33	13.14	8	....	....	....	....	....	2	158	12.66	13.14
Springfield Coal Mining Company,	148,365	105	....	1	....	....	1	9.52	6.74	19	....	....	....	....	....	1	124	8.06	6.74

Century Coke Company,	147,615	95	2	....	....	....	2	21.05	13.55	53	....	....	....	....	....	2	148	13.51	13.55
Potts Run Land Company,	143,459	145	1	....	....	....	1	6.90	6.97	14	....	....	....	....	....	1	159	6.29	6.97
Sunnyside Coal Company,	137,194	154	4	....	....	....	4	25.97	29.16	20	....	....	....	....	....	4	174	22.99	29.16
J. Blair Kennerly,	130,907	116	3	....	....	....	3	25.86	22.92	35	....	....	....	....	....	3	151	19.87	25.86
Lacolle Coal Mining Company,	129,761	95	2	....	....	....	2	21.05	15.41	13	....	....	....	....	....	2	108	18.52	21.05
Pryor Coal Company,	123,504	118	1	....	....	....	1	8.46	8.10	16	....	....	....	....	....	1	134	7.46	8.10
Oak Ridge Coal and Coke Company,	120,786	110	1	....	....	....	1	9.09	8.28	34	....	....	....	....	....	1	144	6.94	8.28
United States Sewer Pipe Company,	120,000	118	1	....	....	....	1	8.47	8.33	11	....	....	....	....	....	1	129	7.75	8.33
Charles W. Braznell,	116,642	76	1	....	....	....	1	13.16	8.57	9	....	....	....	....	....	1	85	11.76	8.57
Smokeless Coal Company,	113,581	111	1	....	....	....	1	9.01	8.80	9	....	....	....	....	....	1	120	8.33	8.80
Union Connellsville Coke Company,	111,248	91	1	....	....	....	1	10.99	8.99	30	....	....	....	....	....	1	121	8.26	8.99
Hustead-Semans Coal and Coke Company,	109,806	95	....	1	....	....	1	10.53	9.11	61	....	....	....	....	....	1	156	6.41	9.11
Howard Gas Coal Company,	109,301	97	1	....	....	....	1	10.31	9.15	21	....	....	....	....	....	1	118	8.47	9.15
Ashman Coal Company,	104,367	125	....	....	....	1	1	8.00	9.58	16	....	....	....	....	....	1	141	7.09	9.58
Pittsburgh and Southwestern Coal Company,	102,200	101	1	....	....	....	1	9.90	9.78	19	....	....	....	....	....	1	120	8.33	9.78
Summit Coal Mining Company,	101,735	72	1	....	....	....	1	13.89	9.83	5	....	....	....	....	....	1	77	12.98	9.83
Stewart Coal Company,	91,919	96	1	....	....	....	1	10.42	10.88	8	....	....	....	....	....	1	104	9.62	10.88
South Fayette Coke Company,	90,392	68	....	....	....	....	....	......	......	44	1	....	....	....	1	1	112	8.93	11.06
Clarion Coal Mining Company,	89,431	73	1	....	....	....	1	13.70	11.18	16	....	....	....	....	....	1	89	11.24	11.18
Export Coal Company,	88,055	74	....	1	....	....	1	13.51	11.36	11	....	....	....	....	....	1	85	11.76	11.36
F. A. Mizner,	82,048	107	1	....	....	....	1	9.35	12.19	9	....	....	....	....	....	1	116	8.62	12.19
Adamsburg Gas Coal Company,	78,093	70	1	....	....	....	1	14.29	12.81	10	....	....	....	....	....	1	80	12.50	12.81
Unity-Connellsville Coke Company,	67,551	52	1	....	....	....	1	19.23	14.80	43	....	....	....	....	....	1	95	10.53	14.80
Coal Run Mining Company,	66,352	75	....	....	....	1	1	13.33	15.07	9	....	....	....	....	....	1	84	11.90	15.07
Bear Run Coal and Coke Company,	61,272	95	1	....	....	....	1	10.53	16.32	8	....	....	....	....	....	1	103	9.71	16.32
Wharton Coal and Coke Company,	57,488	52	1	....	....	....	1	19.23	17.39	31	....	....	....	....	....	1	83	12.05	17.39
Michael Burns,	56,620	76	1	....	....	....	1	13.16	17.66	5	....	....	....	....	....	1	81	12.35	17.66
Standard Quemahoning Coal Company,	56,000	56	1	....	....	....	1	17.86	17.86	7	....	....	....	....	....	1	63	15.87	17.86
Randolph Coal Company,	54,983	78	1	....	....	....	1	12.82	18.19	5	....	....	....	....	....	1	83	12.05	18.19
Rices Landing Coal and Coke Company,	50,786	129	1	....	....	....	1	7.75	19.69	13	....	....	....	....	....	1	142	7.04	19.69
Plumer Coke Company,	50,000	40	1	....	....	....	1	25.00	20.00	36	....	....	....	....	....	1	76	13.16	20.00
Poland Coal Company,	49,544	80	....	....	....	....	....	......	......	24	1	....	....	....	1	1	104	9.62	20.18
Frank Williams and Company,	49,423	82	....	....	....	1	1	12.20	20.23	18	....	....	....	....	....	1	100	10.00	20.23
Prospect Coal and Coke Company,	38,972	46	1	....	....	....	1	21.74	25.66	31	....	....	....	....	....	1	77	12.99	25.66
Dixonville Coal Company,	38,200	51	1	....	....	....	1	19.61	26.18	3	....	....	....	....	....	1	54	18.52	26.18
Superior Coal Mining Company,	34,645	91	1	....	....	....	1	10.99	28.86	9	....	....	....	....	....	1	100	10.00	28.86
Francis Coal Company,	33,000	36	2	....	....	....	2	55.56	60.61	4	....	....	....	....	....	2	40	50.00	60.61
Brownsville Coke Company,	32,367	31	2	....	....	....	2	64.52	61.79	17	....	....	....	....	....	2	48	41.67	61.79
Cortez Coal Company,	31,255	39	2	....	....	....	2	51.28	63.99	5	....	....	....	....	....	2	44	45.45	63.99
Reliance Coke Company,	30,516	80	....	1	....	....	1	12.50	32.77	60	....	....	....	....	....	1	140	7.14	32.77
Colonial Coal Company,	28,458	60	....	....	....	....	....	......	......	7	....	....	1	....	1	1	67	14.93	35.14
Lewis Coal Company,	26,386	22	1	....	....	....	1	45.45	37.90	6	....	....	....	....	....	1	28	35.71	37.90
Connellsville Coke Company,	24,553	17	1	....	....	....	1	58.82	40.77	10	....	....	....	....	....	1	27	37.04	40.77
Red Top Coal Company,	23,567	27	1	....	....	....	1	37.04	42.43	2	....	....	....	....	....	1	29	34.48	42.43
Federal Coal Company,	22,455	63	1	....	....	....	1	15.87	44.53	8	....	....	....	....	....	1	71	14.08	44.53
Bolivar Coal and Coke Company,	22,247	38	1	....	....	....	1	26.32	44.94	24	....	....	....	....	....	1	62	16.13	44.94
Owens Mining Company,	20,814	57	1	....	....	....	1	17.54	48.04	10	....	....	....	....	....	1	67	14.93	48.04
Dornon Coal Company,	17,416	20	1	....	....	....	1	50.00	57.42	4	....	....	....	....	....	1	24	41.67	57.42
Riverside Coal Mining Company,	13,890	63	1	....	....	....	1	15.87	71.99	5	....	....	....	....	....	1	68	14.71	71.99
Brisbin Coal Mining Company,	12,488	21	....	....	....	2	2	95.24	160.15	7	....	....	....	....	....	2	23	86.96	160.15

TABLE 1.—Number of minor children killed inside and outside the mines, by districts, 1913

Districts	Inside						Outside								Grand totals
	Boys 16 years	Boys 17 years	Boys 18 years	Boys 19 years	Boys 20 years	Total inside	Boys 14 years	Boys 15 years	Boys 16 years	Boys 17 years	Boys 18 years	Boys 19 years	Boys 20 years	Total outside	
First,	1	1	2	2	....	6	....	....	....	....	....	....	....	....	6
Second,	....	1	1	3	....	5	....	....	....	....	....	....	....	....	5
Third,	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Fourth,	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Fifth,	....	....	....	....	1	1	....	....	....	....	....	....	....	....	1
Sixth,	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Seventh,	2	....	1	....	....	3	....	....	....	....	....	....	....	....	3
Eighth,	....	....	1	....	....	1	....	....	....	....	....	....	....	....	1
Ninth,	....	1	2	1	1	5	....	....	....	....	....	....	....	....	5
Tenth,	....	....	....	1	....	1	....	....	....	....	....	....	....	....	1
Eleventh,	....	....	....	1	....	1	....	....	....	....	....	....	....	....	1
Twelfth,	....	2	....	1	....	3	....	....	....	....	....	....	....	....	3
Thirteenth,	....	....	....	1	....	1	....	....	1	....	....	....	....	1	2
Fourteenth,	....	....	....	1	....	1	....	....	....	1	....	....	1	2	3
Fifteenth,	2	....	....	1	....	3	....	....	....	....	....	....	....	....	3
Sixteenth,	1	1	1	....	1	4	....	....	1	1	....	....	....	2	6
Seventeenth,	....	....	....	....	....	....	....	1	1	....	....	....	....	2	2
Eighteenth,	1	3	....	2	1	7	....	....	....	....	....	....	....	....	7
Nineteenth,	....	1	....	1	....	2	....	....	....	1	....	....	....	1	3
Twentieth,	....	....	....	....	2	2	....	....	....	....	....	....	....	....	2
Twenty-first,	....	1	....	3	2	6	....	....	....	....	....	....	....	....	6
Twenty-second,	....	....	....	....	....	....	....	....	1	....	....	....	....	1	1
Twenty-third,	....	....	....	1	2	3	....	....	....	....	1	1	....	2	5
Twenty-fourth,	....	....	1	....	1	2	....	....	....	....	....	....	....	....	2
Twenty-fifth,	....	....	....	2	1	3	....	....	....	....	....	....	....	....	3
Twenty-sixth,	1	1	....	2	....	4	....	....	....	....	....	....	....	....	4
Twenty-seventh,	....	....	....	....	1	1	....	....	....	....	....	....	....	....	1
Twenty-eighth,	1	....	....	....	1	2	....	....	....	....	....	....	....	....	2
Totals,	9	12	9	23	14	67	....	1	4	3	1	1	1	11	78

TABLE 2.—Number and causes of fatal accidents inside the mines, production, employes, fatal accidents per 1,000 employes, production per fatal accident, fatal accidents per 1,000,000 tons produced, by counties, 1913

Counties	Fatal accidents inside						Production	Employes inside	Fatal accidents inside per 1,000 employes	Production per fatal accident inside	Fatal accidents inside per 1,000,000 tons produced
	By falls	By cars	By explosions of gas and dust	By electricity	By miscellaneous causes	Totals					
Westmoreland,	70	21	....	2	5	98	33,210,313	24,124	4.06	338,881	2.95
Fayette,	49	22	....	1	3	75	32,348,481	21,751	3.45	431,318	2.32
Allegheny,	28	13	....	4	....	45	20,246,904	19,548	2.30	449,933	2.22
Cambria,	37	8	....	3	2	50	19,265,395	20,353	2.46	385,308	2.60
Washington,	44	22	97	4	1	168	18,458,887	18,153	9.25	109,874	9.10
Indiana,	27	6	....	2	2	37	10,769,944	10,692	3.46	291,080	3.44
Somerset,	21	7	....	2	2	32	9,454,598	9,368	3.42	295,456	3.39
Clearfield,	12	3	....	2	3	20	8,097,076	9,126	2.19	404,854	2.47
Jefferson,	11	1	....	1	1	14	5,597,799	5,064	2.76	399,843	2.50
Totals and averages,	299	103	97	21	19	589	157,449,487	138,174	3.90	292,114	3.42
Armstrong,	7	....	....	....	1	8	5,302,826	5,509	1.45	662,853	1.51
Centre,	1	....	....	....	....	1	1,541,689	1,749	.57	1,541,689	.65
Clarion,	1	....	....	....	1	2	1,364,778	1,518	1.31	682,389	1.47
Elk,	2	....	....	....	....	2	1,301,950	1,625	1.23	650,975	1.54
Butler,	1	....	....	....	....	1	1,130,841	1,380	.72	1,130,841	.88
Tioga,	....	....	....	....	....	....	990,256	1,561	....	....	....
Huntingdon,	2	....	....	....	....	2	964,131	1,225	1.63	482,065	2.07
Bedford,	1	....	....	....	....	1	826,915	1,014	.98	826,915	1.20
Mercer,	....	....	....	....	1	1	775,673	1,073	.93	775,673	1.29
Blair,	....	....	....	....	....	....	398,442	236	....	....	....
Clinton,	....	1	....	....	....	1	332,199	333	3.00	332,199	3.01
Greene,	1	....	....	....	....	1	220,456	314	3.18	220,456	4.54
Beaver,	2	....	....	....	....	2	208,020	264	1.58	104,010	9.61

TABLE 2—Continued

Counties	Fatal accidents inside						Production	Employes inside	Fatal accidents inside per 1,000 employes	Production per fatal accident inside	Fatal accidents inside per 1,000,000 tons produced
	By falls	By cars	By explosions of gas and dust	By electricity	By miscellaneous causes	Totals					
Lawrence,	....	....	....	....	....	....	87,917	173	....	....	....
Cameron,	....	....	....	....	....	....	30,342	35	....	....	....
Lycoming,	....	....	....	....	....	....	28,789	65	....	....	....
Bradford,	....	....	....	....	....	....	10,948	26	....	....	....
Totals and averages,	18	1	....	....	3	22	15,516,172	18,100	1.22	705,281	1.42
Grand totals and averages,	317	104	97	21	22	561	172,965,659	156,274	3.59	308,317	3.24

TABLE 3.—Nationality by birth of employes killed by falls, and location of accidents, by districts, 1913

Districts	Foreigners						Americans						
	By falls at or near face	By falls while taking out pillars	By falls on roads in going to and from work and riding on cars	By falls on entries while timbering and repairing	By falls on slopes	Totals	By falls at or near face	By falls while taking out pillars	By falls on roads in going to and from work and riding on cars	By falls on entries while timbering and repairing	By falls while sinking shaft	Totals	Grand totals
First,	6	1	....	....	....	7	....	....	....	....	....	....	7
Second,	10	13	2	2	....	27	....	....	....	....	....	....	27
Third,	1	....	....	....	....	1	3	...	....	2	....	5	6
Fourth,	4	1	....	....	....	5	2	1	....	....	....	3	8
Fifth,	1	3	....	....	....	4	....	1	....	1	....	2	6
Sixth,	8	4	....	....	....	12	....	1	....	....	....	1	13
Seventh,	7	....	....	....	....	7	....	....	....	....	....	....	7
Eighth,	1	2	....	....	....	3	....	....	....	....	....	....	3
Ninth,	2	3	....	....	....	5	....	3	1	....	....	4	9
Tenth,	3	....	....	....	....	3	....	....	....	....	....	....	3
Eleventh,	4	4	....	1	....	9	1	1	1	....	....	3	12
Twelfth,	9	2	....	....	....	11	1	....	....	1	....	2	13
Thirteenth,	5	1	....	1	....	7	....	....	....	....	....	...	7
Fourteenth,	7	1	....	....	....	8	2	....	....	....	....	2	10
Fifteenth,	8	2	....	....	....	10	2	....	....	....	....	2	12
Sixteenth,	7	8	....	4	....	19	....	....	....	....	....	....	19
Seventeenth,	9	....	....	....	....	9	3	....	....	....	....	3	12
Eighteenth,	3	1	....	....	....	4	3	....	....	...	....	3	7
Nineteenth,	10	4	....	....	....	14	1	...	....	1	....	2	16
Twentieth,	10	3	....	....	....	13	2	2	....	1	....	5	18
Twenty-first,	12	2	....	....	....	14	2	3	....	....	....	5	19
Twenty-second,	6	4	....	....	....	9	....	1	1	....	....	2	11
Twenty-third,	2	3	1	1	....	7	...	....	1	....	....	1	8
Twenty-fourth,	8	5	....	....	....	13	2	....	....	1	....	3	16
Twenty-fifth,	13	5	....	....	1	19	2	....	....	....	....	2	21
Twenty-sixth,	7	5	1	....	....	13	1	....	....	....	....	1	14
Twenty-seventh,	....	4	....	....	....	4	1	3	....	....	....	4	8
Twenty-eighth,	2	....	....	....	....	2	2	1	....	....	....	3	5
Totals,	164	81	4	9	1	259	30	17	4	7	....	58	317

TABLE 4.—Nationality by birth of employes killed by falls, by districts, 1913

Nationality	Districts																												Totals
	First	Second	Third	Fourth	Fifth	Sixth	Seventh	Eighth	Ninth	Tenth	Eleventh	Twelfth	Thirteenth	Fourteenth	Fifteenth	Sixteenth	Seventeenth	Eighteenth	Nineteenth	Twentieth	Twenty-first	Twenty-second	Twenty-third	Twenty-fourth	Twenty-fifth	Twenty-sixth	Twenty-seventh	Twenty-eighth	
American,	....	....	4	1	1	1	....	....	2	....	1	1	....	2	1	....	1	2	1	2	5	1	1	3	1	1	2	1	35
English,	....	....	1	....	....	....	....	....	....	....	....	....	....	....	1	....	1	....	1	....	....	1	....	....	1	....	....	1	7
Welsh,	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	1
Scotch,	....	....	....	2	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	1	5
Irish,	....	....	....	....	1	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	3
German,	....	....	....	....	....	....	....	....	1	....	2	....	....	....	....	....	1	1	....	1	....	....	....	....	....	....	1	....	7
Polish,	1	5	....	4	2	4	....	....	1	....	2	2	2	....	1	2	3	1	1	2	1	2	1	2	2	3	1	....	45
Hungarian,	....	3	....	....	....	....	2	1	1	1	....	....	....	....	1	3	3	1	2	....	3	1	....	4	2	2	1	....	31
Italian,	1	9	1	1	....	2	....	1	....	....	....	3	3	5	3	2	2	1	2	5	3	3	2	2	11	3	....	....	65
Slavonian,	3	3	....	....	1	1	1	....	1	1	1	3	....	1	4	4	....	....	1	2	2	....	2	3	1	....	1	1	37
Lithuanian,	1	....	....	....	....	1	2	....	....	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	1	1	1	....	8
Austrian,	....	5	....	....	....	1	1	....	....	1	....	1	....	1	....	1	....	....	2	2	....	2	....	....	....	1	....	....	18
Russian,	1	....	....	....	1	....	....	....	1	....	1	....	2	....	1	....	....	....	1	1	5	1	....	1	1	2	....	....	19
French,	....	....	....	....	....	1	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....	....	....	3
Belgian,	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Granish,	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Finnish,	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Magyar,	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....	....	1
Horwat,	....	2	....	....	....	2	....	....	1	....	4	....	....	....	....	2	....	1	3	....	....	....	1	....	1	....	....	....	17
Greek,	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	1
Roumanian,	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	2	....	....	....	1	....	....	....	....	....	....	....	....	3
Croatian,	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	1
Sicilian,	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Prussian,	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	1
Swedish,	....	....	....	....	....	....	....	1	....	....	....	2	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	1	5
Bohemian,	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	1
Servian,	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	1
Tyrolean,	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1
Montenegrian	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1
Totals,	7	27	6	8	6	13	7	3	9	3	12	13	7	10	12	19	12	7	16	18	19	11	8	16	21	14	8	5	317

Note. Of the 317 fatalities by falls, 58 occurred among the American, English, Welsh, Scotch, Irish and German employes, generally classed as English speaking and 259 among the other nationalities. The former class comprises about 30 per cent. of the employes and the latter class about 70 per cent. Approximately 25 per cent. of the former are killed by falls and 75 per cent. of the latter.

TABLE 5.—Number and causes of fatal accidents inside the mines and number of fatal accidents outside, by districts, 1913

Districts	Employes inside	Production	Falls	Cars	Gas and dust	Explosives	Blasts	Electricity	Falling into shafts and slopes, etc.	Machinery	Miscellaneous	Total fatal accidents inside	Fatalities inside per 1,000 employes	Fatalities inside per 1,000,000 tons produced	Employes outside	Fatal accidents outside	Total fatal accidents	Total employes	Fatalities inside and outside per 1,000 employes
First, ...	4,852	4,876,139	7	4	97	....	....	1	....	....	....	109	22.46	22.35	980	1	110	5,832	18.86
Second, ...	5,809	9,087,469	27	5	....	....	....	....	....	....	1	33	5.68	3.65	2,572	4	37	8,381	4.41
Third, ...	5,110	3,970,281	6	....	....	....	1	....	....	1	....	8	1.57	2.01	706	......	8	5,816	1.38
Fourth, ...	5,691	5,064,288	8	2	....	....	....	....	....	....	....	10	1.76	1.97	981	......	10	6,672	1.50
Fifth, ...	4,740	7,062,826	6	3	....	....	....	....	....	....	1	10	2.11	1.42	2,666	......	10	7,406	1.35
Sixth, ...	6,815	6,310,389	13	1	....	....	....	1	....	....	....	15	2.20	2.38	1,008	1	16	7,823	2.05
Seventh, ...	7,266	6,271,110	8	5	....	....	....	2	....	....	....	15	2.06	2.39	881	3	18	8,147	2.21
Eighth, ...	5,698	4,627,267	3	....	....	1	....	....	....	....	....	4	.70	.86	654	......	4	6,352	.63
Ninth, ...	5,116	8,219,500	9	6	....	....	1	....	1	....	2	19	3.71	2.31	2,770	1	20	7,886	2.54
Tenth, ...	5,918	5,051,581	3	1	....	....	....	1	....	....	....	5	.84	.99	857	......	5	6,775	.74
Eleventh, ...	5,058	7,762,664	12	4	....	....	....	....	....	....	....	16	3.16	2.06	2,653	3	19	7,711	2.46
Twelfth, ...	5,646	5,853,194	13	2	....	....	....	1	....	....	....	16	2.83	2.73	1,165	......	16	6,811	2.35
Thirteenth, ...	4,114	4,358,889	7	3	....	....	....	....	....	....	....	10	2.43	2.29	523	3	13	4,637	2.80
Fourteenth, ...	6,044	7,702,113	10	6	....	....	....	1	....	....	....	17	2.81	2.21	864	4	21	6,908	3.04
Fifteenth, ...	5,985	5,965,262	12	6	....	2	....	....	....	....	....	20	3.34	3.35	709	......	20	6,694	2.99
Sixteenth, ...	4,752	6,825,726	19	8	....	....	....	....	....	....	....	27	5.80	3.96	2,105	7	34	6,857	4.96
Seventeenth, ...	6,674	6,215,617	12	4	....	....	....	....	....	....	....	16	2.40	2.57	869	3	19	7,543	2.52
Eighteenth, ...	5,765	4,812,366	7	...	....	....	1	2	1	....	....	11	1.91	2.29	705	......	11	6,470	1.70
Nineteenth, ...	6,752	8,617,988	16	7	....	....	....	2	....	....	1	26	3.85	3.02	991	2	28	7,743	3.62
Twentieth, ...	6,239	6,643,466	18	4	....	....	....	....	1	....	1	24	3.85	3.61	810	1	25	7,049	3.55
Twenty-first, ...	5,328	6,456,851	19	12	....	....	....	1	....	....	....	32	6.01	4.96	846	3	35	6,174	5.67
Twenty-second, ...	4,551	5,244,034	11	2	....	....	....	...	....	....	1	14	3.08	2.67	660	2	16	5,211	3.07
Twenty-third, ...	4,238	6,907,495	8	5	....	....	....	1	....	....	....	14	3.30	2.03	2,679	5	19	6,917	2.75
Twenty-fourth, ...	5,953	6,062,961	16	5	....	....	....	3	....	1	....	25	4.20	4.12	581	1	26	6,534	3.98
Twenty-fifth, ...	6,191	6,422,569	21	4	....	....	....	2	....	....	1	28	4.52	4.36	1,310	2	30	7.501	4.00
Twenty-sixth, ...	6,099	5,823,908	14	2	....	....	....	3	....	1	....	20	3.28	3.43	819	1	21	6,918	3.04
Twenty-seventh, ...	4,286	5,007,186	8	1	....	....	....	....	....	....	....	9	2.10	1.80	553	1	10	4,839	2.07
Twenty-eighth, ...	5,584	5,792,570	5	1	....	....	....	....	1	1	....	8	1.43	1.38	718	2	10	6.302	1.59
Totals and percentages	156,274	172,965,659	317	104	97	3	3	21	4	4	8	561	3.59	3.24	33,635	50	611	189,909	3.22

TABLE 6.—Number and causes of fatal accidents inside the mines and number of fatal accidents outside, by years, 1899-1913, inclusive

Years	Employes inside	Production	Falls	Cars	Gas and dust	Explosives	Blasts	Electricity	Falling into shafts and slopes, etc.	Machinery	Miscellaneous	Total fatal accidents inside	Fatalities inside per 1,000 employes	Fatalities inside per 1,000,000 tons produced	Employes outside	Fatal accidents outside	Total fatal accidents	Total employes	Fatalities inside and outside per 1,000 employes
1899, ...	74,933	73,066,945	163	40	29	4	4	5	3	......	2	250	3.34	3.53	16,572	8	258	91,505	2.82
1900, ...	89,736	79,318,862	166	42	7	8	1	6	8	1	15	254	2.84	3.34	18,999	11	265	108,735	2.44
1901, ...	95,562	80,914,236	187	43	27	2	5	8	1	2	11	286	2.99	3.72	21,939	15	301	117,501	2.57
1902, ...	110,015	98,529,122	223	47	*126	3	5	11	11	......	16	442	4.02	4.63	25,596	14	456	135,611	3.36
1903, ...	123,954	103,713,982	238	60	23	5	9	10	7	......	23	375	3.03	3.88	27,791	27	402	151,745	2.65
1904, ...	129,523	99,600,167	237	51	†183	2	4	12	12	......	11	512	3.95	5.38	26,224	24	536	155,747	3.44
1905, ...	135,890	119,361,514	298	57	39	7	9	9	5	9	11	444	3.26	4.01	29,051	35	479	164,941	2.90
1906, ...	141,862	129,532,989	305	84	11	1	7	26	5	7	9	455	3.21	3.68	31,066	22	477	172,928	2.76
1907, ...	150,371	149,559,047	307	102	‡277	2	13	23	20	5	17	766	5.08	5.39	32,750	40	806	183,121	4.40
1908, ...	152,536	114,987,375	262	76	§162	1	5	20	10	6	8	550	3.61	4.98	29,304	22	572	181,840	3.15
1909, ...	152,424	136,205,695	291	82	53	5	2	22	8	1	11	475	3.12	3.71	33,497	31	506	185,921	2.72
1910, ...	159,671	148,770,858	306	107	15	5	5	30	9	5	2	484	3.03	3.62	33,817	55	539	193,488	2.79
1911, ...	151,786	142,189,329	308	90	29	......	6	39	3	5	10	490	3.23	3.62	30,867	25	515	182,653	2.82
1912, ...	148,941	160,830,492	249	106	1	4	4	18	4	7	14	407	2.73	2.77	33,701	39	446	182,642	2.44
1913, ...	156,274	172,965,659	317	104	‖97	3	3	21	4	4	8	561	3.59	3.24	33,635	50	611	189,909	3.22
Totals and averages,	1,973,478	1,809,495,772	3,857	1,091	1,079	52	82	260	110	52	168	6,751	3.42	3.73	424,809	418	7,169	2,398,287	2.99

*Rolling Mill disaster, 112.
†Harwick disaster, 177.
‡Darr disaster, 239; Naomi disaster, 34; total, 273.
§Marianna disaster, 154.
‖Cincinnati disaster, 97.

TABLE 7.—Mines in operation, production, employes, fatal accidents, fatalities inside per 1,000 employes, production per fatality, fatalities per 1,000,000 tons, by districts, 1913

Districts	Mines in operation	Production	Inside employes	Outside employes	Total number of employes	Fatalities inside	Fatalities outside	Fatalities inside per 1,000 employes	Production per fatality inside	Fatalities inside per 1,000,000 tons produced	Fatalities inside and outside per 1,000 employes
First,	17	4,876,139	4,852	980	5,832	109	1	22.46	44,735	22.35	18.86
Second,	56	9,037,469	5,809	2,572	8,381	33	4	5.68	273,863	3.65	4.41
Third,	63	3,970,281	5,110	706	5,816	8	....	1.57	496,285	2.01	1.38
Fourth,	66	5,064,288	5,691	981	6,672	10	....	1.76	506,429	1.97	1.50
Fifth,	44	7,062,826	4,740	2,666	7,406	10	....	2.11	706,283	1.42	1.35
Sixth,	50	6,310,389	6,815	1,008	7,823	15	1	2.20	420,693	2.38	2.05
Seventh,	33	6,271,110	7,266	881	8,147	15	3	2.06	418,073	2.39	2.21
Eighth,	89	4,627,267	5,698	654	6,352	4	....	.70	1,156,817	.86	.63
Ninth,	42	8,219,500	5,116	2,770	7,886	19	1	3.71	432,605	2.31	2.54
Tenth,	56	5,051,581	5,918	857	6,775	5	....	.84	1,010,316	.99	.74
Eleventh,	45	7,762,664	5,058	2,653	7,711	16	3	3.16	485,166	2.06	2.46
Twelfth,	58	5,853,194	5,646	1,165	6,811	16	....	2.83	365,825	2.73	2.35
Thirteenth,	16	4,358,889	4,114	523	4,637	10	3	2.43	435,889	2.29	2.80
Fourteenth,	58	7,702,113	6,044	864	6,908	17	4	2.81	453,065	2.21	3.04
Fifteenth,	64	5,965,262	5,985	709	6,694	20	....	3.34	298,263	3.35	2.99
Sixteenth,	32	6,825,726	4,752	2,105	6,857	27	7	5.80	252,806	3.96	4.96
Seventeenth,	33	6,215,617	6,674	869	7,543	16	3	2.40	388,476	2.57	2.52
Eighteenth,	95	4.812,366	5,765	705	6,470	11	....	1.91	437,488	2.29	1.70
Nineteenth,	28	8,617,988	6,752	991	7,743	26	2	3.85	331,461	3.02	3.62
Twentieth,	88	6,648,466	6,239	810	7,049	24	1	3.85	276,811	3.61	3.55
Twenty-first,	20	6,456,851	5,328	846	6,174	32	3	6.01	201,777	4.96	5.67
Twenty-second,	22	5,244,034	4,551	660	5,211	14	2	3.08	374,574	2.67	3.07
Twenty-third,	40	6,907,495	4,238	2,679	6,917	14	5	3.30	493,392	2.03	2.75
Twenty-fourth,	46	6,062,961	5,953	581	6,534	25	1	4.20	242,518	4.12	3.98
Twenty-fifth,	53	6,422,569	6,191	1,310	7,501	28	2	4.52	229,377	4.36	4.00
Twenty-sixth,	24	5,823,908	6,099	819	6,918	20	1	3.28	291,195	3.43	3.04
Twenty-seventh,	15	5,007,136	4,286	553	4,839	9	1	2.10	556,349	1.80	2.07
Twenty-eighth,	53	5,792,570	5,584	718	6,302	8	2	1.43	724,071	1.38	1.59
Totals and averages,	1,306	172,965,659	156,274	33,635	189,909	561	50	3.59	308,317	3.24	3.22

TABLE 8.—Causes of fatal accidents inside the mines and production per accident by counties, 1888-1913, inclusive

Counties	Fatal Accidents					Production	Production per life lost inside	Lives lost inside per 1,000,000 tons produced	Inside employes
	By falls	By cars	By explosions of gas and dust	By miscellaneous causes	Total				
Fayette,	865	294	142	190	1,491	438,234,108	293,920	3.40	359,305
Westmoreland,	1,084	254	378	176	1,892	432,715,177	228,709	4.37	419,164
Allegheny,	712	165	190	101	1,168	300,321,388	257,124	2.89	395,716
Cambria,	479	111	143	71	804	237,113,141	294,917	3.39	327,642
Washington,	641	203	286	113	1,243	207,217,939	166,708	5.60	245,525
Clearfield,	225	40	2	59	326	159,756,540	490,051	2.04	244,179
Jefferson,	216	58	46	49	369	133,491,748	361,766	2.76	146,429
Somerset,	205	83	5	63	356	103,221,284	289,947	3.45	122,915
Indiana,	167	34	37	22	260	84,240,617	324,002	3.09	102,611
Armstrong,	75	17	......	24	116	45,068,703	388,523	2.57	61,119
Elk,	40	5	......	7	52	26,794,479	515,278	1.94	40,043
Tioga,	21	6	......	1	28	21,611,115	771,825	1.30	43,723
Centre,	30	1	......	3	34	21,130,207	621,477	1.61	32,409
Clarion,	25	3	......	1	29	17,314,964	597,068	1.67	28,446
Mercer,	19	2	......	5	26	16,421,457	631,594	1.58	27,544
Bedford,	14	......	......	3	17	13,581,408	798,906	1.25	23,976
Butler,	24	......	......	4	28	12,494,889	446,246	2.24	20,953
Huntingdon,	21	5	......	8	34	11,390,711	335,021	2.98	19,619
Blair,	11	4	......	......	15	7,778,015	518,534	1.93	12,928
Clinton,	13	3	......	17	33	5,839,383	176,951	5.65	7,001
Beaver,	2	......	......	......	2	4,860,544	2,430,272	.41	8,445
Lawrence,	4	1	......	1	6	4,188,186	698,031	1.43	8,674
Greene,	3	......	......	2	5	1,356,470	271,294	3.68	1,642
Lycoming,	......	......	......	1	1	1,353,033	1,353,033	.74	2,257
Bradford,	2	......	......	......	2	968,134	484,067	2.06	1,804
McKean,	......	......	......	......	......	388,898	....	......	740
Cameron,	......	......	......	......	......	284,957	....	......	547
Totals and averages,	4,898	1,289	1,229	921	8,337	2,309,137,495	276,975	3.61	2,705,356

TABLE 9.—Number of employes inside and outside the mines, number of fatal accidents per 1,000 employes, 1899-1913, inclusive

Years	Inside			Outside			Fatalities inside and outside per 1,000 employes
	Employes	Fatal accidents	Fatalities per 1,000 employes	Employes	Fatal accidents	Fatalities per 1,000 employes	
1899,	74,933	250	3.34	16,572	8	.48	2.83
1900,	89,736	254	2.84	18,999	11	.57	2.44
1901,	95,562	286	2.99	21,939	15	.68	2.56
1902,	110,015	442	4.02	25,596	14	.55	3.36
1903,	123,954	375	3.03	27,791	27	.97	2.65
1904,	129,523	512	3.95	26,224	24	.92	3.44
1905,	135,890	444	3.26	29,051	35	1.20	2.90
1906,	141,862	455	3.21	31,066	22	.71	2.76
1907,	150,371	766	5.08	32,750	40	1.22	4.40
1908,	152,536	550	3.61	29,304	22	.75	3.15
1909,	152,424	475	3.12	33,497	31	.93	2.72
1910,	159,671	484	3.03	33,817	55	1.62	2.78
1911,	151,786	490	3.23	30,867	25	.81	2.82
1912,	148,941	407	2.73	33,701	39	1.16	2.44
1913,	156,274	561	3.59	33,635	50	1.49	3.22

TABLE 10.—Fatal accidents inside the mines, employes, production in net tons, fatalities per 1,000 employes, production per fatality, fatalities per 1,000,000 tons, by companies, 1909-1913, inclusive

Companies	Employes inside	Fatal accidents inside	Fatalities inside per 1,000 employes	Production	Production per fatality inside	Fatalities per 1,000,000 tons
H C. Frick Coke Co.,	63,502	200	3.15	94,981,948	474,910	2.11
Pittsburgh Coal Co.,	95,447	207	2.17	75,620,811	365,318	2.74
Monongahela River Consolidated Coal and Coke Co.,	46,491	270	5.81	42,944,310	159,053	6.29
Berwind-White Coal Mining Co.,	28,415	102	3.59	25,042,312	245,512	4.07
Keystone Coal and Coke Co.,	18,442	81	4.39	20,686,855	255,393	3.92
Pennsylvania Coal and Coke Corporation,	26,704	49	1.83	19,283,715	393,545	2.54
Rochester and Pittsburgh Coal and Iron Co.,	16,810	68	4.05	17,661,349	259,726	3.85
Jamison Coal and Coke Co.,	8,639	85	9.84	14,856,433	174,782	5.72
Westmoreland Coal Co.,	12,200	52	4.26	14,318,426	275,354	3.63
Vesta Coal Co.,	10,629	55	5.17	13,754,250	250,077	4.00
Pittsburgh-Westmoreland Coal Co.,	14,555	40	2.75	13,049,874	326,247	3.07
Consolidation Coal Co.,	11,140	21	1.89	11,036,198	525,533	1.90
Jefferson and Clearfield Coal and Iron Co.,	10,130	43	4.24	10,288,302	239,263	4.18
W. J. Rainey,	6,809	31	4.55	9,612,054	310,066	3.22
Cambria Steel Co.,	9,534	52	5.45	9,335,511	179,529	5.57
Ellsworth Collieries Co.,	9,527	65	6.82	9,294,194	142,988	6.99
Pittsburgh Terminal Railroad and Coal Co.,	11,198	27	2.41	9,128,080	338,077	2.96
Buffalo and Susquehanna Coal and Coke Co.,	9,501	22	2.32	9,025,254	410,239	2.44
Washington Coal and Coke Co.,	5,136	10	1.94	8,344,230	834,423	1.20
Pittsburgh Gas Coal Co.,	7,604	26	3.42	8,298,477	319,172	3.13
Pittsburgh-Buffalo Co.,	9,180	207	22.55	8,074,062	39,005	25.64
Northwestern Mining and Exchange Co.,	9,455	18	1.90	7,808,415	433,801	2.31
Clearfield Bituminous Coal Corporation,	10,212	9	.88	7,668,260	852,029	1.17
New York and Cleveland Gas Coal Co.,	8,526	12	1.41	7,603,714	633,634	1.58
Penn Gas Coal Co.,	5,360	23	4.29	7,158,885	311,255	3.21
Youghiogheny and Ohio Coal Co.,	6,655	22	3.31	6,520,113	296,369	3.22
United Coal Co.,	6,181	24	3.88	6,290,218	262,093	3.82
Shawmut Mining Co.,	7,074	13	1.84	5,681,103	437,008	2.29
Oliver and Snyder Steel Co.,	4,350	17	3.91	5,559,571	327,034	3.06
Latrobe Connellsville Coal and Coke Co.,	5,535	24	4.34	5,443,269	226,803	4.41
Cowanshannock Coal and Coke Co.,	5,532	15	2.71	5,423,105	361,540	2.77
National Mining Co.,	5,057	11	2.18	5,333,367	484,852	2.06
Jenner Quemahoning Coal Co.,	3,491	29	8.31	4,850,437	167,256	5.98
Ocean Coal Co.,	3,857	21	5.44	4,269,987	203,333	4.92
Penn Mary Coal Co.,	3,946	13	3.29	4,236,283	325,868	3.07
Peale, Peacock and Kerr, Incorporated,	4,639	2	.43	3,738,997	1,869,499	.53
Consolidated Connellsville Coke Co.,	2,102	4	1.90	3,566,781	891,695	1.12
Carnegie Coal Co.,	4,448	13	2.92	3,543,987	272,614	3.67
Thompson Connellsville Coke Co.,	2,635	18	6.83	3,471,108	192,839	5.19
Allegheny River Mining Co.,	3,554	7	1.97	3,336,623	476,662	2.10
Cascade Coal and Coke Co.,	3,639	23	6.32	3,242,634	140,984	7.09
Logan Coal Co.,	4,101	9	2.19	3,147,017	349,669	2.86
Corona Coal and Coke Co. and H. B. Swoope Co.,	3,565	3	.84	3,144,404	1,048,135	.95
Hostetter Connellsville Coke Co.,	2,280	9	3.95	3,129,414	347,713	2.88
Blaine Coal Co.,	3,031	5	1.65	3,035,001	607,000	1.65
Republic Iron and Steel Co.,	2,676	10	3.74	3,017,778	301,778	3.31
Pittsburgh and Baltimore Coal Co.,	2,907	21	7.22	2,987,128	142,244	7.03
Morrisdale Coal Co.,	3,318	2	.60	2,926,300	1,463,150	.68
Bessemer Coke Co.,	3,194	17	5.32	2,915,833	171,520	5.83
Tower Hill Connellsville Coke Co.,	2,183	5	2.29	2,901,601	580,320	1.72
Pittsburgh and Eastern Coal Co.,	3,735	7	1.87	2,900,592	414,370	2.41
Russell Coal Co.,	3,417	5	1.46	2,893,587	578,717	1.73
Quemahoning Coal Co.,	2,397	11	4.59	2,873,642	261,240	3.83
Carrolltown Coal Co.,	3,691	7	1.90	2,829,795	404,256	2.47
Somerset Smokeless Coal Co.,	2,910	29	9.96	2,671,577	92,123	10.86
Brier Hill Coke Co.,	2,382	11	4.62	2,659,450	241,768	4.14
Diamond Coal and Coke Co.,	2,328	5	2.15	2,651,712	530,342	1.89
Sunshine Coal Co.,	1,739	12	6.90	2,627,825	218,985	4.57
Connellsville Central Coke Co.,	1,732	2	1.15	2,606,616	1,303,308	.77

TABLE 10.—Continued

Companies	Employes inside	Fatal accidents inside	Fatalities inside per 1,000 employes	Production	Production per fatality inside	Fatalities per 1,000,000 tons
Pittsburgh and Erie Coal Co.,	2,132	10	4.69	2,578,340	257,834	3.88
Loyal Hanna Coal and Coke Co.,	2,599	7	2.69	2,568,667	366,952	2.73
Pittsburgh Plate Glass Co.,	2,882	4	1.38	2,492,637	623,159	1.60
Barnes and Tucker,	3,113	6	1.93	2,487,001	474,500	2.41
Commercial Coal Mining Co.,	2,763	7	2.53	2,436,193	348,027	2.87
Taylor Coal and Coke Co.,	1,323	5	3.78	2,397,219	479,444	2.09
Allegheny Coal Co.,	1,990	12	6.03	2,393,111	199,426	5.01
Bessemer Coal and Coke Co.,	2,078	10	4.81	2,355,961	235,596	4.24
Brothers Valley Coal Co.,	2,713	8	2.95	2,319,097	289,887	3.45
Lincoln Coal and Coke Co.,	1,456	3	2.06	2,312,000	770,667	1.30
Ford Collieries Co.,	1,794	2	1.11	2,276,852	1,138,426	.88
Madeira-Hill Coal Mining Co.,	3,307	9	2.72	2,262,750	251,417	3.98
Morris Run Coal Mining Co.,	4,479	1	.22	2,166,153	2,166,153	.46
Saltsburg Coal Co.,	2,089	2	.96	2,146,900	1,073,450	.93
Crescent Coal Co.,	2,202	9	4.09	2,141,218	237,913	4.20
Orient Coke Co.,	1,116	11	9.86	2,083,020	189,365	5.28
Vinton Colliery Co.,	2,593	7	2.70	2,074,434	269,348	3.37
Rock Hill Iron and Coal Co.,	3,013	10	3.32	2,044,234	204,423	4.89
Meadow Lands Coal Co.,	2,799	15	5.36	1,985,153	132,344	7.56
Stineman Coal and Coke Co.,	2,279	1	.44	1,949,912	1,949,912	.51
Sterling Coal Co.,	2,466	3	1.22	1,947,577	649,192	1.54
Manor Gas Coal Co.,	1,747	6	3.43	1,926,858	321,143	3.11
Portage Coal Mining Co.,	2,320	5	2.16	1,926,652	285,330	2.60
Sharon Coal and Limestone Co.,	2,892	4	1.38	1,878,841	469,710	2.13
Greenwich Coal and Coke Co.,	2,521	7	2.78	1,836,078	262,297	3.81
Argyle Coal Co.,	2,055	7	3.41	1,787,630	255,376	3.92
Blossburg Coal Co.,	3,083	2	.65	1,785,920	892,960	1.12
Fayette Coal Co.,	2,163	4	1.85	1,750,058	437,514	2.29
Atlantic Crushed Coke Co.,	1,412	6	4.25	1,747,060	291,177	3.43
Kettle Creek Coal Mining Co.,	1,755	4	2.28	1,692,959	423,240	2.36
Empire Coal Mining Co.,	2,370	2	.84	1,660,176	830,088	1.20
Cornell Coal Co.,	1,190	3	2.52	1,652,146	550,715	1.82
Henderson Coal Co.,	1,438	3	2.09	1,636,499	545,499	1.83
Anita Coal Mining Co.,	1,515	3	1.98	1,636,314	545,438	1.83
Nant-Y-Glo Coal Mining Co.,	2,132	2	.94	1,607,509	803,754	1.24
Naomi Coal Co.,	1,635	9	5.50	1,533,446	170,383	5.87
Moshannon Coal Mining Co.,	1,364	1	.73	1,461,402	1,461,402	.68
Henriette Coal Mining Co.,	1,799	5	2.78	1,459,818	291,964	3.42
New Alexandria Coke Co.,	1,020	5	4.90	1,458,130	291,626	3.43
Valley Camp Coal Co.,	954	2	2.10	1,431,117	715,558	1.40
Fairmount Coal Co.,	2,582	3	1.16	1,428,587	476,196	2.10
Sonman Shaft Coal Co.,	2,418	5	2.07	1,428,532	285,706	3.50
Shoemaker Coal Mining Co.,	1,677	5	2.98	1,402,348	280,469	3.57
Verner Coal and Coke Co.,	1,670	10	5.99	1,395,117	139,512	7.17
Donohoe Coke Co.,	761	7	9.20	1,362,619	194,660	5.14
Carbon Coal and Coke Co.,	2,370	3	1.27	1,344,009	448,003	2.23
Brown and Cochran,	825	3	3.64	1,341,259	447,086	2.24
Knickerbocker Smokeless Coal Co.,	1,048	7	6.68	1,341,099	191,586	5.21
Mt. Pleasant Coke Co.,	933	1	1.07	1,339,255	1,339,255	.75
Cherry Tree Coal Co.,	1,438	5	3.48	1,297,888	259,578	3.85
Stineman Coal Mining Co.,	1,537	2	1.30	1,282,674	641,337	1.56
Lackawanna Coal and Coke Co.,	1,417	23	16.23	1,266,305	55,057	10.27
Miller Coal Co.,	1,482	5	3.37	1,239,846	247,969	4.03
Altoona Coal and Coke Co.,	1,651	5	3.03	1,222,611	244,522	4.09
Latrobe Coal Co.,	1,079	3	2.78	1,210,057	403,352	2.48
Atlas Coke Co.,	766	4	5.22	1,199,339	299,835	3.34
Seneca Coal Mining Co.,	1,089	4	3.67	1,175,043	293,761	3.40
Mount Pleasant Connellsville Coke Co.,	808	1	1.24	1,149,442	1,149,442	.87
Taylor and McCoy Coal and Coke Co.,	1,480	1	.68	1,072,217	1,072,217	.93
Whyel Coal Co.,	813	2	2.46	1,059,951	529,976	1.89
Jefferson Coal Co.,	1,088	2	1.84	1,054,318	527,159	1.90
Valley Smokeless Coal Co.,	1,025	2	1.95	1,028,781	514,391	1.94
Watkins Coal Co.,	962	2	2.08	1,027,666	513,833	1.95
Pennsylvania Salt Manufacturing Co.,	729	2	2.74	999,136	499,568	2.00
Bulger Block Coal Co.,	1,391	1	.72	995,879	995,879	1.00
Century Coke Co.,	751	6	7.99	991,907	165,318	6.05
Joseph E. Throop,	1,620	2	1.23	987,117	493,559	2.03
J. Blair Kennerly,	1,362	6	4.41	983,936	163,989	6.10
Duncan and Spangler Coal Co.,	1,116	2	1.79	982,023	491,012	2.04
Forge Coal Mining Co.,	1,007	5	4.97	969,090	193,818	5.16
John McLeavy and Co.,	776	1	1.29	951,853	951,853	1.05

TABLE 10.—Continued

Companies	Employes inside	Fatal accidents inside	Fatalities inside per 1,000 employes	Production	Production per fatality inside	Fatalities per 1,000,000 tons
Keystone Coal Co.,	799	4	5.09	950,081	237,520	4.21
Cochran Coal Co.,	864	5	5.79	928,224	185,645	5.39
Butts Cannel Coal Co.,	1,238	1	.81	920,355	920,355	1.09
Mercer Iron and Coal Co.,	1,127	1	.89	910,610	910,610	1.10
Reading Iron Co.,	749	1	1.34	909,364	909,364	1.10
Avonmore Coal and Coke Co.,	885	1	1.13	908,340	908,340	1.10
Punxsutawney Coal Mining Co.,	989	1	1.01	898,906	898,906	1.11
Star Coal Co.,	825	2	2.42	897,897	448,948	2.23
J. H. Sanford Coal Co.,	1,125	6	5.33	894,817	149,136	6.70
Ligonier Coal Co.,	863	6	6.95	886,833	147,805	6.77
Fayette Coke Co.,	806	5	6.20	884,697	176,939	5.65
Kelley Brothers Coal Co.,	1,246	1	.80	871,165	871,165	1.15
Puritan Coke Co.,	746	2	2.68	865,348	432,674	2.31
Clyde Coal Co.,	769	4	5.20	855,686	213,921	4.67
Struthers Coal and Coke Co.,	790	9	11.39	840,654	93,406	10.71
George Pearce and Sons,	1,237	2	1.61	799,490	399,745	2.50
Westerman-Filer Co.,	1,182	5	4.23	785,040	157,008	6.37
Wharton Coal and Coke Co.,	559	6	10.73	783,584	130,597	7.66
Cardiff Coal Co.,	957	1	1.04	781,079	781,077	1.28
Pine Run Co.,	537	1	1.86	777,153	777,153	1.29
Waltersburg Coke Co.,	525	1	1.90	775,196	775,196	1.29
Cymbria Coal Co.,	835	2	2.40	771,501	385,750	2.59
Rich Hill Coal Co.,	1,131	1	.88	767,510	767,510	1.30
Graceton Coke Co.,	811	3	3.70	765,011	255,004	3.92
Keystone Mining Co.,	998	3	3.01	728,516	242,839	4.12
Irish Brothers Coal Co.,	1,161	1	.86	714,230	714,230	1.40
Sunnyside Coal Co.,	834	7	8.39	710,509	101,501	9.85
S. J. Mountz and Co.,	858	1	1.16	673,360	673,360	1.48
Kiskiminetas Coal Co.,	841	2	2.38	666,061	333,030	3.00
Miscellaneous Companies,	179,696	329	1.83	135,853,603	412,929	2.42

TABLE 11.—Number of employes inside between 16 and 21 years, and number of employes outside between 14 and 21 years, by districts, 1913

Districts	Inside Employes			Outside Employes			
	Between 16 and 21 years	Over 21 years	Total	Between 14 and 21 years	Over 21 years	Total	Grand totals
First,	140	4,712	4,852	53	927	980	5,832
Second,	389	5,420	5,809	157	2,415	2,572	8,381
Third,	192	4,918	5,110	57	649	706	5,816
Fourth,	479	5,212	5,691	83	898	981	6,672
Fifth,	214	4,526	4,740	132	2,534	2,666	7,406
Sixth,	341	6,474	6,815	73	935	1,008	7,823
Seventh,	315	6,951	7,266	106	775	881	8,147
Eighth,	343	5,355	5,698	66	588	654	6,352
Ninth,	314	4,802	5,116	242	2,528	2,770	7,886
Tenth,	276	5,642	5,918	73	784	857	6,775
Eleventh,	235	4,823	5,058	203	2,450	2,653	7,711
Twelfth,	354	5,292	5,646	83	1,082	1,165	6,811
Thirteenth,	194	3,920	4,114	93	430	523	4,637
Fourteenth,	182	5,862	6,044	45	819	864	6,908
Fifteenth,	451	5,534	5,985	80	629	709	6,694
Sixteenth,	183	4,569	4,752	127	1,978	2,105	6,857
Seventeenth,	451	6,223	6,674	125	744	869	7,543
Eighteenth,	261	5,504	5,765	47	658	705	6,470
Nineteenth,	226	6,526	6,752	110	881	991	7,743
Twentieth,	330	5,909	6,239	64	746	810	7,049
Twenty-first,	136	5,192	5,328	56	790	846	6,174
Twenty-second,	300	4,251	4,551	96	564	660	5,211
Twenty-third,	217	4,021	4,238	126	2,553	2,679	6,917
Twenty-fourth,	168	5,785	5,953	43	538	581	6,534
Twenty-fifth,	331	5,860	6,191	126	1,184	1,310	7,501
Twenty-sixth,	303	5,796	6,099	97	722	819	6,918
Twenty-seventh,	142	4,144	4,286	61	492	553	4,839
Twenty-eighth,	482	5,102	5,584	77	641	718	6,302
Totals,	7,949	148,325	156,274	2,701	30,934	33,635	189,909

TABLE AA.—Production of coal and coke, number of days worked, number of employes, number of fatal and non-fatal accidents, quantity of explosives used, etc., by districts, 1913, and totals for 1899-1912, inclusive

Districts	Number of tons of coal shipped to market	Number of tons used at mines for steam and heat	Number of tons sold to local trade and used by employes	Total production of coal in tons of 2,000 pounds	Total production of coke in tons of 2,000 pounds	Tons of coal used in manufacture of coke	Number of coke ovens	Average number of days worked	Number of employes	Number of fatal accidents	Number of non-fatal accidents	Explosives			Number of horses and mules
												Number of pounds of powder used	Number of pounds of dynamite used	Number of pounds of permissible explosives used	
First,	3,871,507	69,989	34,278	4,876,139	504,843	900,365	782	245	5,832	110	40	215,586	1,200	356,922	347
Second,	4,506,306	242,387	75,170	9,037,469	2,716,148	4,213,606	5,917	270	8,381	37	41	18,100	2,200	372,644	846
Third,	3,748,050	194,586	27,645	3,970,281	....	....	....	240	5,816	8	51	579,072	32,685	....	418
Fourth,	4,505,949	166,946	71,969	5,064,288	190,804	319,424	460	244	6,672	10	49	1,118,124	83,833	19,980	389
Fifth,	287,791	124,535	72,447	7,062,826	4,421,789	6,578,053	8,064	270	7,406	10	17	13,150	500	503,533	994
Sixth,	5,444,606	160,879	84,870	6,310,389	486,234	620,534	372	265	7,823	16	37	473,956	33,695	167,664	785
Seventh,	6,114,425	126,872	29,813	6,271,110	....	....	....	237	8.147	18	59	662,293	22,305	325	454
Eighth,	4,513,719	88,676	24,872	4,627,267	....	....	....	229	6,352	4	30	849,326	25,516	....	472
Ninth,	2,071,141	179,995	137,666	8,219,500	3,818,534	5,830,698	8,252	279	7,886	20	47	231,400	3,750	390,320	948
Tenth,	4,425,541	109,289	40,645	5,051,581	320,866	476,106	1,217	239	6,775	5	57	545,091	24,920	143,760	444
Eleventh,	2,342,351	180,521	63,411	7,762,664	3,477,596	5,176,381	6,782	274	7,711	19	38	6,250	905	542,716	975
Twelfth,	4,812,836	288,810	33,580	5,853,194	509,874	717,968	2,121	250	6,811	16	34	1,034,135	26,049	95,583	292
Thirteenth,	4,238,984	68,303	51,602	4.858,889	....	....	....	258	4,637	13	29	608,166	1,400	61,160	332
Fourteenth,	7,430,206	150,196	121,711	7,702,113	....	....	33	282	6,908	21	33	599,143	13,370	589,788	357
Fifteenth,	5,594,520	138,260	29,937	5,965,262	132,846	202,545	482	257	6,694	20	41	763,546	48,822	3,485	322
Sixteenth,	1,254,345	156,125	30.028	6,825,726	3,596,103	5,385,233	6,232	278	6,857	34	32	....	1,000	649,682	756
Seventeenth,	6,031,757	102,633	81,227	6,215,617	....	....	....	233	7,543	19	19	618,685	9,540	1,550	467
Eighteenth,	4,479,453	78,648	31,178	4,812,366	151,805	223,087	440	253	6,470	11	28	708,652	40,555	525	741
Nineteenth,	8,310,115	222,094	35,348	8,617,988	31,336	50,431	85	283	7,743	28	43	318,961	894	230,760	544
Twentieth,	6,446,665	171,904	24,897	6,643,466	....	....	226	215	7,049	25	45	1,385,258	55,574	123,413	328
Twenty-first,	6,032,675	166,690	22,786	6,456,851	152,983	234,700	685	249	6,174	35	40	396,206	1,750	839,158	207
Twenty-second,	5,012,214	91,899	28,467	5,244,034	77,015	111,454	236	233	5,211	16	33	313,266	370	229,519	377
Twenty-third,	607,166	153,116	46,809	6,907,495	4,088,486	6,100,404	7,066	271	6,917	19	26	....	....	969,942	848
Twenty-fourth,	5,863,248	120,763	71,950	6,062,961	4,664	7,000	53	258	6,534	26	25	883,606	94,685	91,915	194
Twenty-fifth,	5,949,351	244,765	18,113	6,422,569	121,231	210,340	780	227	7,501	30	64	604,881	32,825	264,976	143
Twenty-sixth,	5,652,311	143,441	28,156	5,828,908	....	....	....	219	6,918	21	50	486,719	4,675	19,323	428
Twenty-seventh,	4,906,027	66,868	11,541	5,007,186	15,131	22,700	42	260	4,839	10	38	502,681	6,755	38,225	299
Twenty-eighth,	5,593,274	179,809	19,487	5,792,570	....	....	....	223	6,302	10	36	717,779	126,389	8,160	211
Totals, 1913,	130,046,537	4,188,999	1,349,098	172,965,659	24,718,229	37,381,029	50,327	251	189,909	611	1,082	14,652,931	696,162	6,715,022	13,868

TABLE AA.—Continued

	Number of tons of coal shipped to market	Number of tons used at mines for steam and heat	Number of tons sold to local trade and used by employes	Total production of coal in tons of 2,000 pounds	Total production of coke in tons of 2,000 pounds	Tons of coal used in manufacture of coke	Number of coke ovens	Average number of days worked	Number of employes	Number of fatal accidents	Number of non-fatal accidents	Explosives: Number of pounds of powder used	Explosives: Number of pounds of dynamite used	Explosives: Number of pounds of permissible explosives used	Number of horses and mules
Totals, 1912, ...	118,034,180	4,039,988	1,295,243	160,830,492	24,682,474	37,461,081	48,735	241	182,642	416	1,164	13,402,084	527,807	5,699,176	13,908
Totals, 1911, ...	107,258,031	3,709,490	1,049,234	142,189,329	19,984,320	30,172,574	47,636	220	182,653	515	1,101	12,926,781	658,330	4,462,416	13,774
Totals, 1910, ...	108,178,275	3,617,589	1,273,301	148,770,858	23,722,944	35,701,693	50,529	217	193,488	539	1,142	12,539,613	513,665	5,126,251	13,741
Totals, 1909, ...	98,449,146	3,199,018	1,096,993	136,205,695	22,508,944	33,460,538	49,042	210	185,921	506	1,126	12,221,214	694,129	3,291,400	14,722
Totals, 1908, ...	90,053,866	2,960,031	996,076	114,937,375	13,839,656	20,927,402	47,070	184	181,840	572	1,026	12,788,800	2,193,944	*	14,486
Totals, 1907, ...	110,632,428	3,168,919	1,263,428	149,559,047	23,516,309	34,494,272	47,202	238	183,121	806	1,207	16,874,225	3,425,494	*	15,328
Totals, 1906, ...	95,408,068	2,838,851	1,028,004	129,532,989	20,681,702	30,263,066	42,915	239	172,928	477	1,160	18,119,650	2,425,078	*	14,707
Totals, 1905, ...	88,489,864	2,616,719	944,210	119,361,514	18,519,310	27,310,721	39,754	216	164,941	479	1,076	15,194,150	2,159,680	*	13,710
Totals, 1904, ...	76,543,529	2,442,647	943,237	99,600,167	13,281,475	19,670,754	38,642	190	155,747	536	917	12,626,275	1,860,161	*	12,849
Totals, 1903, ...	81,127,701	2,351,622	807,223	103,713,982	14,286,995	21,213,358	37,705	216	151,745	402	1,046	11,145,725	1,136,305	*	12,899
Totals, 1902, ...	74,088,032	1,992,199	907,966	98,529,122	14,941,091	21,540,925	34,423	221	135,611	456	861	9,966,725	921,149	*	11,833
Totals, 1901, ...	59,974,631	1,435,631	1,008,457	80,914,236	13,125,156	18,495,617	31,845	216	117,501	301	656	7,850,400	698,801	*	10,108
Totals, 1900, ...	58,564,954	1,327,256	723,731	79,318,362	12,185,112	18,702,421	30,120	219	108,735	265	584	7,409,175	243,517	*	9,633
Totals, 1899, ...	53,376,096	823,415	630,801	73,066,943	12,192,570	18,236,631	25,511	266	91,571	258	487	6,460,700	222,076	*	8,013

*No record kept.

TABLE AA.—Part 2, 1913

Districts	Boilers					Locomotives			Number of steam engines of all classes	Total horse power	Number of pumps delivering water to surface	Capacity in gallons per minute	Quantity delivered to surface per minute—gallons	Number of electric dynamos	Number of air compressors
	Cylindrical	Horse power	Tubular	Horse power	Total horse power	Steam	Air	Electric							
First,	......	......	83	14,235	14,235	......	......	102	78	13,875	50	5,940	3,810	27	1
Second,	3	120	188	31,760	31,880	13	12	37	179	21,862	98	58,630	24,535	35	19
Third,	6	1,000	118	13,885	14,885	2	......	51	101	9,418	90	21,012	12,473	30	38
Fourth,	......	......	99	15,351	15,351	8	......	84	100	17,956	58	24,606	15,124	36	29
Fifth,	11	820	162	20,540	21,360	10	11	10	138	16,224	68	38,030	13,547	23	33
Sixth,	10	2,360	106	14,840	17,200	......	8	73	91	13,909	63	18,175	10,405	28	29
Seventh,	......	......	91	14,955	14,955	......	......	80	93	14,854	119	17,398	24,722	43	11
Eighth,	5	248	72	9,080	9,328	12	......	63	77	7,848	64	18,601	13,661	27	12
Ninth,	30	1,545	166	22,005	23,550	24	11	49	159	17,157	83	42,842	23,500	31	27
Tenth,	18	1,520	96	14,530	16,050	8	......	73	85	11,974	44	18,310	11,735	37	12
Eleventh,	20	2,098	166	22,235	24,333	25	20	26	201	19,429	96	75,069	22,675	21	40
Twelfth,	4	345	175	24,532	24,877	10	......	110	124	18,322	53	63,585	24,932	40	52
Thirteenth,	2	125	61	7,450	7,575	3	......	47	68	8,347	38	7,665	5.613	25	1
Fourteenth,	8	1,100	101	14,230	15,330	2	......	92	111	13,917	80	13,130	7,090	30	17
Fifteenth,	2	120	118	16,280	16,400	......	......	106	109	15,139	86	25,421	19,678	48	29
Sixteenth,	......	......	122	26,439	26,439	7	38	36	173	27,607	59	15,982	6,340	42	39
Seventeenth,	6	195	75	11,499	11,694	4	1	70	67	13,411	70	15,462	11,625	31	8
Eighteenth,	2	150	83	8,794	8,944	2	......	20	90	6,613	71	20,330	12,095	18	17
Nineteenth,	4	160	111	17,428	17,588	1	11	57	129	18,306	57	31,069	13,970	45	23
Twentieth,	27	2,985	101	17,008	19,993	1	......	122	108	22,091	63	18,975	14,160	33	27
Twenty-first,	16	2,090	83	18,905	20,995	1	38	81	125	24,359	72	16,265	9,204	26	19
Twenty-second,	2	56	58	8,540	8,596	3	......	42	61	9,133	41	13,101	8,841	16	4
Twenty-third,	1	150	125	21,250	21,400	5	18	48	125	19,150	31	13,061	5,627	41	35
Twenty-fourth,	......	......	56	13,332	13,332	1	......	104	46	17,767	34	20,463	13,836	34	12
Twenty-fifth,	......	......	102	24,555	24,555	1	......	145	80	20,485	49	21,691	12,010	30	33
Twenty-sixth,	2	275	93	14,725	15,000	2	......	74	75	11,394	77	16,380	11,134	35	18
Twenty-seventh,	6	540	39	4,960	5,500	......	......	42	41	5,748	51	9,632	6,669	20	2
Twenty-eighth,	......	......	98	19,760	19,760	3	......	90	58	17,729	56	21,115	14,665	32	33
Totals,	185	18,002	2,947	463,103	481,105	148	168	1,983	2,892	483,524	1,821	632,030	376,676	889	620

TABLE A.—Number of each class of employes inside and outside, by districts, 1913

Occupations	Districts															
	First	Second	Third	Fourth	Fifth	Sixth	Seventh	Eighth	Ninth	Tenth	Eleventh	Twelfth	Thirteenth	Fourteenth	Fifteenth	Sixteenth
Inside																
Mine foremen,	16	53	63	63	43	53	31	90	42	53	42	53	16	58	61	31
Assistant mine foremen,	46	29	25	33	35	48	37	17	36	42	27	29	32	37	35	31
Fire bosses,	54	52	4	11	62	34	50	......	58	8	57	19	48	30	8	53
Miners,	956	3,469	1,851	2,564	2,655	4,232	1,343	3,970	2,280	2,876	2,955	1,938	875	1,419	2,463	1,496
Machine runners,	191	67	210	156	49	97	350	69	120	104	68	149	175	295	156	180
Machine loaders,	2,360	545	1,952	1,847	237	946	4,018	741	1,096	1,819	392	2,489	2,015	2,871	2,394	1,304
Machine scrapers,	184	67	201	150	44	97	287	68	78	104	65	149	175	295	156	180
Drivers and runners,	371	627	394	372	442	567	384	344	392	406	427	297	281	410	226	348
Doorboys and helpers,	52	79	48	50	57	63	62	59	46	40	46	47	28	68	56	22
Company men,	446	644	296	258	680	489	356	227	469	399	650	333	399	455	307	694
All other employes,	176	177	66	187	436	189	348	113	499	67	329	143	70	106	123	414
Totals,	4,852	5,809	5,110	5,691	4,740	6,815	7,266	5,698	5,116	5,918	5,058	5,646	4,114	6,044	5,985	4,752
Outside																
Superintendents,	13	44	43	38	40	24	19	37	37	37	35	36	11	53	22	29
Foremen,	27	43	6	17	54	10	12	23	48	16	51	12	14	14	10	48
Blacksmiths and carpenters,	94	161	94	123	165	95	123	102	156	104	125	98	71	134	100	110
Engineers and firemen,	128	210	142	139	182	146	108	93	196	131	191	193	74	132	121	168
Coke employes,	228	1,437	....	132	1,361	281	......	......	1,448	192	1,473	322	......	......	78	1,106
Bookkeepers and clerks,	36	53	52	55	69	48	37	50	77	45	51	34	16	57	31	61
All other employes,	454	624	369	477	795	404	582	349	808	332	727	470	337	474	347	583
Totals,	980	2,572	706	981	2,666	1,008	881	654	2,770	857	2,653	1,165	523	864	709	2,105
Grand totals inside and outside,	5,832	8,381	5,816	6,672	7,406	7,823	8,147	6,352	7,886	6,775	7,711	6,811	4,637	6,908	6,694	6,857

Note.—The percentages of the different classes of employes are as follows:—Inside officials—mine foremen, assistant mine foremen and fire bosses, 2.04; producers of coal—miners, machine runners, machine scrapers and machine loaders, 78.62; those in charge of transportation—drivers, runners, doorboys and helpers, 7.71 and men doing other work 11.59. Total 100 per cent. Outside. Officials—superintendents and foremen, 4.26; carpenters and blacksmiths, 20.06; coke workers, 30.03; all other workers, 45.46. Total, 100 per cent.

TABLE A.—Continued

Occupations	Districts												
	Seventeenth	Eighteenth	Nineteenth	Twentieth	Twenty-first	Twenty-second	Twenty-third	Twenty-fourth	Twenty-fifth	Twenty-sixth	Twenty-seventh	Twenty-eighth	Grand totals
Inside													
Mine foremen,	30	95	27	74	20	22	34	46	50	25	15	51	1,257
Assistant mine foremen,	44	21	38	41	30	31	41	51	34	35	31	27	968
Fire bosses,	46	......	66	15	57	55	43	9	18	64	43	11	975
Miners,	1,608	4,177	2,561	3,664	907	1,264	1,829	1,680	1,550	953	1,092	1,380	59,986
Machine runners,	226	37	255	87	179	143	98	310	177	297	119	250	4,608
Machine loaders,	3,361	603	2,894	1,126	2,740	1,970	660	2,578	3,249	3,318	2,045	2,956	54,026
Machine scrapers,	218	37	121	88	179	140	92	310	169	295	119	249	4,312
Drivers and runners,	434	482	485	462	441	302	352	313	244	404	268	234	10,659
Doorboys and helpers,	49	70	54	62	28	64	27	35	24	78	36	47	1,337
Company men,	377	188	522	585	639	410	832	157	462	258	408	347	12,287
All other employes,	281	105	229	40	113	151	235	464	214	377	110	52	5,814
Totals,	6,674	5,765	6,752	6,289	5,328	4,551	4,238	5,953	6,191	6,099	4,286	5,584	156,274
Outside													
Superintendents,	25	41	22	42	15	15	25	23	17	16	8	19	786
Foremen,	11	19	14	16	24	15	58	18	22	19	9	15	645
Blacksmiths and carpenters,	101	85	100	97	82	88	168	95	111	110	54	105	3,046
Engineers and firemen,	108	96	135	159	185	79	151	88	130	94	57	107	3.698
Coke employes,	......	119	43	......	77	80	1,651	20	115	....	9	....	10,122
Bookkeepers and clerks,	38	44	32	66	31	23	40	36	27	37	20	29	1,195
All other employes,	586	301	645	430	482	415	586	301	888	543	396	443	14,148
Totals,	869	705	991	810	846	660	2,679	581	1,310	819	553	718	33,635
Grand totals inside and outside,	7,543	6,470	7,743	7,049	6,174	5,211	6,917	6,534	7,501	6,918	4,839	6,302	189.909

TABLE B.—Causes of fatal accidents inside and outside the mines and number attributable to each cause; number of widows and orphans caused by accidents, by districts, 1913

Causes	Districts																												Totals	Percentages
	First	Second	Third	Fourth	Fifth	Sixth	Seventh	Eighth	Ninth	Tenth	Eleventh	Twelfth	Thirteenth	Fourteenth	Fifteenth	Sixteenth	Seventeenth	Eighteenth	Nineteenth	Twentieth	Twenty-first	Twenty-second	Twenty-third	Twenty-fourth	Twenty-fifth	Twenty-sixth	Twenty-seventh	Twenty-eighth		
Inside																														
Falls of coal, slate and roof,	7	27	6	8	6	13	7	3	9	3	12	13	7	10	12	19	12	7	16	18	19	11	8	16	21	14	8	5	317	56.50
Mine cars,	4	5	..	2	3	1	6	..	6	1	4	2	3	6	6	8	4	..	7	4	12	2	5	5	4	2	1	1	104	18.54
Explosions of gas and dust,	97	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	...	....	....	....	....	....	....	....	....	....	97	17.29
Explosions of powder and dynamite,	....	..	..	..	..	..	..	1	..	..	..	..	..	..	2	..	..	..	...	....	....	....	....	....	....	....	....	....	3	.54
Blasts, premature and otherwise,	....	..	1	..	..	..	..	..	1	..	..	..	..	..	..	..	..	1	...	....	....	...	....	....	....	....	....	....	3	.54
Falling into shafts, slopes, etc,	....	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	1	...	1	....	....	....	....	....	....	....	1	4	.71
Machinery,	....	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	...	....	....	....	....	1	....	1	....	1	4	.71
Electricity,	1	..	..	..	..	1	2	..	..	1	..	1	..	1	..	..	..	2	2	....	1	....	1	3	2	3	....	....	21	3.74
Miscellaneous,	....	1	..	..	1	..	..	..	2	..	..	..	..	..	..	..	..	..	1	1	....	1	....	....	1	....	....	....	8	1.43
Totals,	109	33	8	10	10	15	15	4	19	5	16	16	10	17	20	27	16	11	26	24	32	14	14	25	28	20	9	8	561	100.00
Outside																														
Cars,	1	1	..	..	..	..	2	..	1	..	2	..	1	3	..	2	1	..	2	....	....	2	4	1	1	....	1	1	26	52.00
Machinery,	....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3	1	..	...	....	1	....	....	....	1	....	....	....	6	12.00
Electricity,	....	1	..	..	..	1	1	..	..	..	..	..	..	..	..	1	1	..	...	....	....	....	....	....	....	1	....	....	6	12.00
Miscellaneous,	....	2	..	..	..	..	..	..	..	..	1	..	2	1	..	1	..	..	...	1	2	....	1	....	....	....	....	1	12	24.00
Totals,	1	4	..	..	..	1	3	..	1	..	3	..	3	4	..	7	3	..	2	1	3	2	5	1	2	1	1	2	50	100.00
Grand totals inside and outside,	110	37	8	10	10	16	18	4	20	5	19	16	13	21	20	34	19	11	28	25	35	16	19	26	30	21	10	10	611	

Widows 347. Orphans 808.

TABLE C.—Causes of non-fatal accidents inside and outside the mines and number attributable to each cause, by districts, 1913

Causes	Districts																												Totals	Percentages
	First	Second	Third	Fourth	Fifth	Sixth	Seventh	Eighth	Ninth	Tenth	Eleventh	Twelfth	Thirteenth	Fourteenth	Fifteenth	Sixteenth	Seventeenth	Eighteenth	Nineteenth	Twentieth	Twenty-first	Twenty-second	Twenty-third	Twenty-fourth	Twenty-fifth	Twenty-sixth	Twenty-seventh	Twenty-eighth		
Inside																														
Falls of coal, slate and roof, ..	19	24	23	24	9	24	34	15	23	21	20	20	19	11	21	15	11	17	30	20	22	24	5	10	33	34	25	21	574	56.72
Mine cars, ...	11	9	15	10	5	9	13	6	17	23	9	9	6	12	12	10	6	9	6	18	10	6	10	10	16	12	9	7	295	29.15
Explosions of gas and dust, ..	..	..	..	..	..	..	1	..	..	..	..	..	..	3	..	..	..	..	...	....	....	....	....	....	....	....	....	....	4	.39
Explosions of powder and dynamite, ...	..	..	..	1	..	..	..	1	..	2	2	..	..	1	..	..	..	..	...	1	...	....	....	2	1	....	....	....	11	1.09
Blasts, premature and otherwise, ...	1	3	3	7	..	2	1	3	2	2	2	..	..	..	1	..	1	..	1	....	2	....	1	1	3	....	....	1	37	3.66
Falling into shafts, slopes, etc, ...	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	...	....	....	....	....	....	....	....	....	....	....	....
Kicked by mules, etc, ...	..	..	..	1	..	..	3	..	..	..	1	..	..	..	..	..	..	..	...	....	1	1	2	....	....	1	....	....	10	.99
Machinery, ...	5	3	4	2	..	1	3	2	..	2	1	1	..	2	3	1	1	..	1	2	....	....	....	....	2	3	....	1	40	3.95
Electricity, ...	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	1	....	....	....	....	....	1	....	....	....	3	.30
Miscellaneous, ...	2	1	1	1	2	..	1	1	3	3	1	1	1	1	3	3	..	1	3	2	3	2	....	....	....	....	1	1	38	3.75
Totals, ...	38	40	46	46	16	36	56	28	45	53	36	31	26	31	40	29	19	27	42	43	38	33	18	23	56	50	35	31	1,012	100.00
Outside																														
Cars, ...	1	1	3	1	1	1	1	1	1	3	1	3	..	1	1	3	..	1	...	1	1	....	2	....	4	....	3	5	40	57.14
Machinery, ...	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	...	....	1	....	1	....	4	....	....	....	7	10.00
Electricity, ...	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	...	....	....	....	....	....	....	....	....	....	....	....
Miscellaneous, ...	..	..	2	2	..	..	2	1	1	1	1	..	3	1	..	..	..	..	1	1	....	....	5	2	....	....	....	....	23	32.86
Totals, ...	2	1	5	3	1	1	3	2	2	4	2	3	3	2	1	3	..	1	1	2	2	....	8	2	8	....	3	5	70	100.00
Grand totals inside and outside, ...	40	41	51	49	17	37	59	30	47	57	38	34	29	33	41	32	19	28	43	45	40	33	26	25	64	50	38	36	1,082	

Table D.—Number of gaseous and non-gaseous mines in operation, number of mine foremen, assistant mine foremen and firebosses in gaseous mines, and number of mine foremen and assistant mine foremen in non-gaseous mines and the production and percentage of production from gaseous and non-gaseous mines, by districts, 1913

Districts	Gaseous mines				Non-gaseous mines			Production from gaseous mines	Production from non-gaseous mines	Percentages of production from gaseous mines	Percentages of production from non-gaseous mines
	Number of gaseous mines in operation	Number of mine foremen	Number of assistant mine foremen	Number of fire bosses	Number of non-gaseous mines in operation	Number of mine foremen	Number of assistant mine foremen				
First,	16	15	45	54	1	1	1	4,763,968	112,171	97.70	2.30
Second,	7	7	10	52	49	46	19	2,082,087	6,955,382	23.04	76.96
Third,	2	2	2	4	61	61	23	826,602	8,043,679	8.23	91.77
Fourth,	3	6	8	11	63	57	25	1,266,750	3,797,588	25.01	74 99
Fifth,	27	26	32	62	17	17	3	6,128,348	934,478	86.77	13.23
Sixth,	10	13	22	34	40	40	26	2,594,888	3,715,501	41.12	58.88
Seventh,	19	19	22	50	14	12	15	4,024,658	2,246,452	64.18	35.82
Eighth,	....	....	....	....	89	90	17	....	4,627,267	......	100.00
Ninth,	13	18	23	58	24	24	13	5,618,037	2,601,463	68.35	31.65
Tenth,	5	5	3	8	51	48	39	732,407	4,319,174	14.50	85.50
Eleventh,	27	26	26	57	18	16	1	7,072,118	690,546	91.10	8.90
Twelfth,	7	9	11	19	51	44	18	2,078,838	3,774,356	35.52	64.48
Thirteenth,	14	14	31	48	2	2	1	3,993,866	365,023	91.63	8.37
Fourteenth,	16	16	21	30	42	42	16	4,228,042	3,474,071	54.89	45.11
Fifteenth,	7	8	6	8	57	53	29	1,600,389	4,364,873	26.83	73.17
Sixteenth,	25	24	30	53	7	7	1	6,270,147	555,579	91.86	8.14
Seventeenth,	13	12	30	46	20	18	14	4,281,866	1,933,751	68.89	31.11
Eighteenth,	....	....	....	....	95	95	21	....	4,812,366	......	100.00
Nineteenth,	15	15	29	66	13	12	9	6,386,443	2,231,545	74.11	25.89
Twentieth,	7	6	13	15	81	68	28	1,431,716	5,211,750	21.55	78.45
Twenty-first,	19	19	30	57	1	1	....	6,453,947	2,904	99.95	.05
Twenty-second,	15	15	29	55	7	7	2	4,774,689	469,345	91.05	8.95
Twenty-third,	16	15	28	43	24	19	13	4,251,643	2,655,852	61.55	38.45
Twenty-fourth,	5	5	4	9	41	41	47	912,910	5,150,051	15.06	84.94
Twenty-fifth,	12	12	12	18	41	38	22	2,248,965	4,173,604	35.02	64.98
Twenty-sixth,	17	18	33	64	7	7	2	4,875,913	947,995	83.72	16.28
Twenty-seventh,	11	11	28	43	4	4	3	4,046,537	960,599	80.81	19.19
Twenty-eighth,	3	3	3	11	50	48	24	820,135	4,972,435	14.16	85.84
Totals and percentages,	336	339	531	975	970	918	432	93,265,909	79,699,750	53.92	46.08

TABLE E.—Companies that produced 300,000 or more tons of coal and the number of persons employed inside and outside, 1913

Companies	Districts	Production	Employes inside	Employes outside	Total employes
H. C. Frick Coke Company,	Second, Fifth, Ninth, Eleventh, Sixteenth, Twenty-third,	18,097,088	10,460	6,461	16,921
Pittsburgh Coal Company,	Seventh, Thirteenth, Seventeenth, Twenty-second, Twenty-sixth, Twenty-seventh,	13,125,416	13,770	1,866	15,636
Monongahela River Consolidated Coal and Coke Company,	First, Thirteenth, Sixteenth, Seventeenth, Twenty-first, Twenty-second, Twenty-seventh,	8,016,945	7,146	918	8,064
Berwind-White Coal Mining Company,	Eighteenth, Twenty-fourth,	4,289,406	3,982	233	4,215
Keystone Coal and Coke Company,	Second, Eleventh, Nineteenth,	4,060,312	2,863	610	3,473
Rochester and Pittsburgh Coal and Iron Company,	Third, Twelfth, Twenty-fifth, Twenty-eighth,	3,484,172	3,028	768	3,796
Pennsylvania Coal and Coke Corporation,	Sixth, Eighth, Tenth, Twelfth, Fifteenth,	3,419,804	3,724	515	4,239
Vesta Coal Company,	Twenty-first,	2,962,326	2,067	310	2,377
Westmoreland Coal Company,	Ninth, Nineteenth,	2,939,685	2,201	264	2,465
Pittsburgh Terminal Railroad and Coal Company,	Seventeenth,	2,808,189	3,066	377	3,443
Jamison Coal and Coke Company,	Second,	2,517,940	1,385	789	2,174
Jefferson and Clearfield Coal and Iron Company,	Twelfth, Twenty-fifth, Twenty-eighth,	2,273,861	2,143	528	2,671
Pittsburgh-Westmoreland Coal Company,	First, Nineteenth,	2,146,638	2,227	387	2,614
W. J. Rainey,	Fifth, Ninth, Eleventh, Sixteenth,	1,977,436	1,271	812	2,083
Consolidation Coal Company,	Twentieth,	1,952,760	1,659	208	1,867
Buffalo and Susquehanna Coal and Coke Company,	Fourth, Twenty-eighth,	1,834,880	1,602	197	1,799
Ellsworth Collieries Company,	First,	1,822,305	1,519	475	1,994
Pittsburgh Gas Coal Company,	Twenty-fifth,	1,697,815	1,326	380	1,706
Pittsburgh-Buffalo Company,	Seventh, Seventeenth, Twenty-first, Twenty-sixth,	1,697,428	1,685	211	1,896
Penn Gas Coal Company,	Nineteenth, Twenty-second,	1,555,104	883	176	1,059
Cambria Steel Company,	Sixth,	1,500,854	1,357	410	1,767
Clearfield Bituminous Coal Corporation,	Eighth, Twelfth, Fifteenth, Twenty-fifth,	1,485,491	1,461	189	1,650
Allegheny River Mining Company,	Third, Twenty-eighth,	1,472,688	1,425	164	1,589
Washington Coal and Coke Company,	Eleventh,	1,425,291	844	466	1,310
Youghiogheny and Ohio Coal Company,	Ninth, Seventeenth, Twenty-sixth,	1,415,843	1,224	173	1,397
New York and Cleveland Gas Coal Company,	Seventeenth, Nineteenth,	1,310,333	1,217	135	1,352
Cowanshannock Coal and Coke Company,	Twenty-eighth,	1,250,269	1,091	155	1,246
Northwestern Mining and Exchange Company,	Fourth,	1,185,287	1,403	247	1,650
Ocean Coal Company,	Nineteenth,	1,122,151	791	115	906
United Coal Company,	Thirteenth, Twenty-sixth,	1,097,663	1,032	124	1,156
Latrobe Connellsville Coal and Coke Company,	Second,	1,066,617	948	268	1,216
Shawmut Mining Company,	Fourth,	1,028,996	1,095	141	1,236
National Mining Company,	Twenty-sixth,	980,963	823	143	966
Oliver and Snyder Steel Company,	Fifth,	924,129	739	389	1,128
Jenner Quemahoning Coal Company,	Twentieth,	918,259	715	127	842

TABLE E.—Continued

Companies	Districts	Production	Employes inside	Employes outside	Total employes
Ford Collieries Company,	Fourteenth,	916,157	517	64	581
Carnegie Coal Company,	Second, Seventh,	900,689	1,178	99	1,277
Diamond Coal and Coke Company,	Thirteenth, Twenty-first.	846,794	666	69	735
Hostetter-Connellsville Coke Company,	Second,	757,353	382	281	663
Consolidated Connellsville Coke Company,	Twenty-third,	743,336	473	399	872
Republic Iron and Steel Company,	Fifth, Sixteenth, Twenty-third,	715,597	524	329	853
Thompson Connellsville Coke Company,	Sixteenth,	694,792	467	171	638
Penn Mary Coal Company,	Twenty-fifth,	673,511	618	72	690
Ebensburg Coal Company,	Fifteenth,	644,441	477	72	549
Quemahoning Coal Company,	Twentieth,	631,480	504	64	568
Tower Hill Connellsville Coke Company,	Sixteenth,	621,278	447	284	731
Bessemer Coke Company,	Second, Eleventh, Twenty-first, Twenty-third,	606,818	608	243	851
Pittsburgh and Baltimore Coal Company,	Nineteenth,	606,576	510	77	587
Peale, Peacock and Kerr, Incorporated,	Eighth, Twenty-eighth,	595,797	622	70	692
Bessemer Coal and Coke Company,	Fourteenth,	590,402	404	74	478
Corona Coal and Coke Company and H. B. Swoope Company,	Eighteenth,	573,241	525	57	582
Connellsville Central Coke Company,	Sixteenth,	555,644	307	166	473
Henderson Coal Company,	Twenty-seventh,	554,343	379	44	423
New Alexandria Coke Company,	Second,	549,387	248	35	283
Pittsburgh and Erie Coal Company,	Seventh, Ninth,	542,315	485	62	547
Meadow Lands Coal Company,	Twenty-sixth,	541,744	587	52	639
Cascade Coal and Coke Company,	Fourth, Twelfth,	539,235	618	250	868
Logan Coal Company,	Sixth,	522,311	539	64	603
Carrolltown Coal Company,	Fifteenth,	512,801	479	51	530
Blaine Coal Company,	Thirteenth,	506,269	521	52	573
Pittsburgh and Eastern Coal Company,	Seventh,	504,240	511	72	583
Saltsburg Coal Company,	Fourteenth,	503,470	403	35	438
Rock Hill Iron and Coal Company,	Eighteenth,	497,971	614	39	653
Brothers Valley Coal Company,	Twentieth,	488,063	512	50	562
Somerset Smokeless Coal Company,	Twentieth,	483,327	503	93	596
Taylor Coal and Coke Company,	Sixteenth,	479,872	228	108	336
Barnes and Tucker Company,	Fifteenth,	462,336	562	49	611
Commercial Coal Mining Company,	Tenth,	458,552	461	65	526
Morrisdale Coal Company,	Eighth,	451,967	502	46	548
Manor Gas Coal Company,	Nineteenth,	449,473	331	38	369
Allegheny Coal Company,	Fourteeenth,	440,514	321	65	386
Vinton Colliery Company,	Tenth,	428,101	468	115	583

Valley Camp Coal Company,	Fourteenth,	425,414	262	47	309
Russell Coal Company,	Twenty-fifth,	425,212	466	58	524
Loyal Hanna Coal and Coke Company,	Second, Sixth, Twenty-fourth,	416,971	369	88	457
Valley Smokeless Coal Company,	Twenty-fourth,	416,261	424	53	477
Sterling Coal Company,	Fifteenth,	407,048	417	32	449
Lincoln Coal and Coke Company,	Fifth,	404,500	263	149	412
Greenwich Coal and Coke Company,	Fifteenth, Twenty-fifth,	403,110	455	60	515
Morris Run Coal Mining Company,	Eighth,	396,943	660	68	728
Madeira-Hill Coal Mining Company,	Twelfth, Fifteenth, Eighteenth,	394,104	488	50	538
Brier Hill Coke Company,	Sixteenth,	381,990	388	171	559
Acme Gas Coal Company,	Third,	380,822	374	47	421
Sunshine Coal and Coke Company,	Fifth, Ninth, Sixteenth, Twenty-third,	380,390	294	236	530
Portage Coal Mining Company,	Sixth,	376,324	363	31	394
Orient Coke Company,	Sixteenth,	372,794	272	154	426
Crescent Coal Company,	Seventeenth,	362,331	350	42	392
W. Harry Brown,	Sixteenth,	358,920	230	114	344
Naomi Coal Company,	Twenty-seventh,	354,435	271	45	316
Atlantic Crushed Coke Company,	Second,	351,561	206	69	275
Cornell Coal Company,	Fourteenth,	351,473	228	30	258
Sharon Coal and Limestone Company,	Third,	350,289	570	63	633
Warner-Youghiogheny Coal Company,	Twenty-seventh,	348,318	304	29	333
Argyle Coal Company,	Sixth,	345,652	308	43	351
Lackawanna Coal and Coke Company,	Twenty-fourth,	341,222	355	70	425
Moshannon Coal Mining Company,	Eighth, Eighteenth,	335,417	335	31	366
Lehigh Valley Coal Company,	Eighth,	325,959	330	40	370
Sonman Shaft Coal Company,	Tenth,	318,260	422	36	458
Fayette Coal Company,	Seventh,	317,575	330	32	362
Stineman Coal and Coke Company,	Sixth,	314,411	347	38	385
Nant-Y-Glo Coal Mining Company,	Tenth, Fifteenth,	312,092	330	30	360
Kettle Creek Coal Mining Company,	Fourth,	304,841	288	56	344
Anita Coal Mining Company,	Twenty-eighth,	304,405	249	22	271
Totals,		133,727,095	113,561	25,791	139,352

The 108 companies named in this table out of 520 companies in the region, produced 133,727,095 tons or 77.31 per cent. of the total output 172,965,659 tons.

TABLE F.—Classification of employes killed or fatally injured inside and outside the mines, 1899-1913, inclusive

Killed or Fatally Injured	1899	1900	1901	1902	1903	1904	1905	1906	1907	1908	1909	1910	1911	1912	1913	Totals
Inside																
Mine foremen,	1	3	7	3	1	1	1	3	1	....	4	2	....	2	5	34
Assistant mine foremen,	....	....	1	1	....	....	1	....	1	3	....	1	....	2	3	13
Fire bosses,	....	....	1	7	3	2	5	4	8	4	1	1	1	2	1	40
Miners,	173	192	203	314	236	208	261	247	362	219	260	235	267	215	254	3,646
Machine runners,	2	4	3	13	10	16	13	7	19	11	11	7	12	7	15	150
Machine loaders,	27	11	11	35	48	143	77	105	172	144	69	119	104	43	134	1,242
Machine scrapers,	3	1	2	10	5	12	7	13	8	8	6	7	11	12	13	118
Drivers and runners,	19	19	29	23	39	26	38	37	79	33	37	41	31	34	41	526
Doorboys and helpers,	....	3	1	2	5	6	3	3	22	2	5	6	3	2	4	67
Company men,	2	1	10	28	17	15	14	18	49	87	51	32	7	19	40	390
All other employes,	23	20	18	6	11	83	24	18	45	*39	31	33	54	69	51	525
Totals,	250	254	286	442	375	512	444	455	766	550	475	484	490	407	561	6,751
Outside																
Superintendents,	1	....	....	1	....	....	....	....	....	....	1	....	1	....	....	4
Foremen,	....	....	1	1	2	1	2	1	....	1	1	....	2	....	....	12
Blacksmiths and carpenters,	....	....	....	1	....	....	1	....	1	2	1	1	1	4	....	12
Engineers and firemen,	3	....	....	3	2	2	....	1	3	1	....	7	....	1	6	29
Coke employes,	....	....	2	1	4	....	4	....	7	1	3	14	....	3	11	50
All other employes,	4	11	12	7	19	21	28	20	29	17	25	33	21	31	33	311
Totals,	8	11	15	14	27	24	35	22	40	22	31	55	25	39	50	418
Grand totals inside and outside,	258	265	301	456	402	536	479	477	806	572	506	539	515	446	611	7,169

*Marianna disaster, 12 victims, occupation unknown.

Note.—Of the total number of accidents inside, 87 or 1.29 per cent. occurred among those in charge of the mines—mine foremen, assistant mine foremen and fire bosses; 5,156 or 76.37 per cent. among the producers of coal—miners, machine runners, machine loaders and machine scrapers; 593 or 8.79 per cent. among those employed in the transportation of coal—drivers, runners, doorboys and helpers; 915 or 13.55 per cent. among other employes—roadmen, bratticemen and others. Of the total number outside, 16 or 3.83 per cent. occurred among the superintendents and foremen; 41 or 9.81 per cent. among carpenters, blacksmiths, engineers and firemen; 50 or 11.96 per cent. among the coke workers, and 311 or 74.40 per cent. among the other employes.

TABLE G.—Number and causes of fatal accidents and the percentages inside and outside the mines by decades, 1877-1913, inclusive

Fatal Accidents	1877-1886	Percentages	1887-1896	Percentages	1897-1906	Percentages	1907-1913	Percentages	Total number of fatal accidents	Percentages for 37 years
Inside										
By falls of coal, slate and roof,	435	72.14	859	63.58	2,060	61.47	2,040	54.68	5,394	59.68
By mine cars,	80	13.27	185	13.68	475	14.17	667	17.84	1,407	15.56
By explosions of gas and dust,	54	8.95	177	13.09	443	13.22	627	16.80	1,301	14.39
By explosions of powder and dynamite,	1	.17	30	3.22	34	1.02	20	.53	85	.94
By explosions of blasts,	4	.66	16	1.18	51	1.52	38	1.02	109	1.20
By falling into shafts and slopes,	1	.16	17	1.26	54	1.61	58	1.55	130	1.44
By mules,	5	.83	4	.30	8	.24	5	.13	22	.24
By suffocation,	....	....	9	.67	19	.57	7	.19	35	.39
By machinery,	8	1.33	5	.37	20	.60	33	.88	66	.73
By electricity,	....	....	2	.15	57	1.70	172	4.61	231	2.56
Miscellaneous causes,	15	2.49	48	3.55	130	3.88	66	1.77	259	2.87
Totals,	603	100.00	1,352	100.00	3,351	100.00	3,733	100.00	9,039	100.00
Outside										
By cars,	12	42.86	16	48.49	74	42.77	134	51.15	236	47.58
By machinery,	2	7.14	3	9.09	24	13.87	36	13.74	65	13.11
By suffocation,	....	....	....	....	1	.58	4	1.52	5	1.01
By boiler explosions,	8	28.57	....	....	7	4.05	5	1.91	20	4.03
By electricity,	....	....	....	....	....	....	14	5.34	14	2.82
Miscellaneous causes,	6	21.43	14	42.42	67	38.73	69	26.34	156	31.45
Totals,	28	100.00	33	100.00	173	100.00	262	100.00	496	100.00
Grand totals inside and outside,	631	....	1,385	....	3,524	....	3,995	....	9,535	....

TABLE H.—Nationality by birth of employes killed or fatally injured inside and outside the mines, 1899-1913, inclusive

Nationality	1889	1900	1901	1902	1903	1904	1905	1906	1907	1908	1909	1910	1911	1912	1913	Totals	Per-cent-ages
American,	62	71	72	59	83	100	104	63	131	107	92	102	80	90	133	1,849	18.82
English,	14	16	20	25	12	22	14	10	8	25	15	11	10	10	14	226	3.15
Welsh,	7	2	5	5	3	3	3	4	3	3	1	2	1	......	3	45	.62
Scotch,	10	8	5	5	7	4	7	11	7	7	14	4	5	4	11	109	1.52
Irish,	10	11	11	7	7	5	11	6	12	6	12	3	3	5	5	114	1.59
German,	16	10	13	14	16	13	13	19	45	10	10	14	10	8	11	222	3.10
Totals and percentages,	119	118	126	115	128	147	152	113	206	158	144	136	109	117	177	2,065	28.80
Slavonian,	46	56	59	94	79	69	90	95	118	96	97	100	118	97	63	1,277	17.81
Italian,	26	29	32	50	43	73	57	71	121	73	80	84	75	70	107	991	13.82
Polish,	20	19	28	90	31	44	63	70	57	64	80	67	76	53	67	829	11.56
Hungarian,	16	13	13	36	46	71	84	39	177	43	25	43	40	28	44	668	9.32
Austrian,	13	12	24	38	32	39	45	46	69	32	37	47	30	21	38	523	7.30
Swedish,	5	7	4	4	12	5	......	5	3	2	6	......	2	8	6	69	.96
Russian,	4	3	3	17	9	11	14	22	27	41	16	24	20	14	50	275	3.83
Belgian,	4	2	......	2	2	2	4	4	......	......	2	2	2	2	4	32	.45
Bohemian,	3	3	3	1	4	5	5	......	1	3	1	1	......	2	1	33	.46
French,	2	3	5	1	5	2	2	5	3	3	1	5	1	2	4	44	.61
Finnish,	......	......	3	2	1	4	2	1	4	1	......	1	1	2	1	23	.32
Canadian,	......	......	1	......	......	......	1	......	......	1	......	1	1	......	......	5	.07
Lithuanian,	......	......	......	6	4	8	6	5	9	11	10	14	17	11	12	113	1.58
Greek,	......	......	......	......	4	......	1	......	3	1	1	......	2	......	1	13	.18
Tyrolean,	......	......	......	......	2	......	......	......	......	......	......	......	......	......	1	3	.04
Danish,	......	......	......	......	......	1	1	......	......	......	......	......	......	......	......	2	.03
Croatian,	......	......	......	......	......	1	......	1	1	2	4	2	5	1	1	18	.25
Japanese,	......	......	......	......	......	......	1	......	......	......	......	......	......	......	......	1	.02
Syrian,	......	......	......	......	......	......	1	......	......	......	......	......	......	......	......	1	.02
Montenegrian,	......	......	......	......	......	......	......	......	2	......	......	......	......	......	1	3	.04
Horwat,	......	......	......	......	......	......	......	......	4	2	......	7	12	13	23	61	.85
Roumanian,	......	......	......	......	......	......	......	......	......	1	......	1	......	1	3	6	.08
Granish,	......	......	......	......	......	......	......	......	......	1	2	2	......	2	3	10	.14
Magyar,	......	......	......	......	......	*54	......	......	†1	‡37	......	2	1	1	2	98	1.37
Sicilian,	......	......	......	......	......	......	......	......	......	......	......	......	2	......	§1	3	.04
Prussian,	......	......	......	......	......	......	......	......	......	......	......	......	1	......	......	1	.02
Servian,	......	......	......	......	......	......	......	......	......	......	......	......	......	1	1	2	.03
Totals and percentages,	139	147	175	341	274	389	327	364	600	414	362	403	406	329	434	5,104	71.20
Grand totals and percentages,	258	265	301	456	402	536	479	477	806	572	506	539	515	446	611	7,169	100.00

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*Harwick disaster, 54 victims, nationality unknown.
†Darr disaster, 1 victim, nationality unknown.
‡Marianna disaster, 37 victims, nationality unknown.
§Cincinnati disaster, 1 victim, nationality unknown.

TABLE I.—Production of coal, production per employe inside, quantity of explosives used, production for each pound of explosives used, 1899-1913, inclusive

Years	Production net tons	Average number of tons produced per employe inside	Explosives: Number of pounds of black powder used	Explosives: Number of pounds of dynamite used	Explosives: Number of pounds of permissible explosives used	Average number of tons of coal produced for each pound of explosives used
1899,	73,066,945	975	6,600,700	222,076	....	10.62
1900,	79,318,362	884	7,409,925	243,517	....	10.36
1901,	80,914,236	847	7,851,500	693,801	....	9.47
1902,	98,529,122	896	9,966,726	921,149	....	9.90
1903,	103,713,982	837	11,145,725	1,136,305	....	8.44
1904,	99,600,167	768	12,626,275	1,360,161	....	7.12
1905,	119,361,514	878	15,194,150	2,159,680	....	6.88
1906,	129,532,989	913	18,119,650	2,425,073	....	6.39
1907,	149,559,047	995	16,874,225	3,425,494	....	7.37
1908,	114,937,375	754	12,738,800	2,193,944	....	7.70
1909,	136,205,695	894	12,221,214	694,129	3,291,400	8.46
1910,	148,770,858	932	12,539,613	513,665	5,126,251	8.18
1911,	142,189,329	937	12,925,731	658,330	4,462,416	7.88
1912,	160,830,492	1,080	13.402,034	527,807	5,699,176	8.19
1913,	172,965,659	1,107	14,652,931	696,162	6,715,028	8.21
Totals and averages,	1,809,495,772	978	184,269,198	17,871,293	25,294,271	7.96

TABLE J.—Number of employes inside and outside the mines, by counties, 1881-1913, inclusive

Counties	1881-1890	1891-1900	1901-1910	1911-1913
Allegheny,	107,799	141,869	202,029	66,770
Armstrong,	3,864	11,427	39,751	17,099
Beaver,	3,183	4,461	3,747	912
Bedford,	4,519	9,107	13,973	3,186
Blair,	6,079	5,702	6 ,285	1,277
Bradford,	4,892	1,025	230	69
Butler,	3,581	4,296	13,709	4,496
Cambria,	23,149	85,547	200,810	67,771
Cameron,	508	....	729	2,311
Centre,	6,052	10,187	17,145	5,459
Clarion,	9,202	10,154	14,836	5,166
Clearfield,	64,090	89,026	112,037	33,146
Clinton,	332	2,044	4,184	1,178
Elk,	10,106	13,964	23,144	5,685
Fayette,	60,956	134,802	283,512	95,964
Greene,	72	....	1,267	622
Huntingdon,	5,275	6,216	10,597	3,776
Indiana,	1,749	8,879	73,554	34,667
Jefferson,	20,002	62,362	78,454	19,223
Lawrence,	2,687	4,336	3,941	459
Lycoming,	1,474	1,460	1,331	221
McKean,	907	605	162	....
Mercer,	10,967	10,203	13,537	3,900
Somerset,	6,720	17,771	86,821	29,396
Sullivan,	....	337	....	....
Tioga,	24,390	20,960	20,984	5,469
Venango,	364	....	....	....
Washington,	35,125	61,941	140,031	60,647
Westmoreland,	84,646	145,550	276,043	88,415
Totals,	508,690	864,231	1,642,849	555,304

TABLE K.—Production of coal by counties, by decades, 1881-1913, inclusive

Counties	1881-1890 Net Tons	1891-1900 Net Tons	1901-1910 Net Tons	1911-1913 Net Tons	Total Net Tons
Allegheny,	46,948,701	78,252,192	148,895,955	56,958,631	331,055,479
Armstrong,	1,991,959	6,484,896	24,992,086	13,142,134	46,611,074
Beaver,	1,512,710	2,045,689	2,062,944	568,221	6,189,564
Bedford,	1,993,477	4,233,854	6,564,298	1,954,827	14,746,456
Blair,	2,591,383	2,546,582	3,312,470	1,022,073	9,472,508
Bradford,	2,466,159	428,601	76,602	44,347	3,015,709
Butler,	1,591,731	1,874,447	6,979,209	3,106,547	13,551,934
Cambria,	12,809,330	53,104,046	125,262,453	52,888,055	244,063,874
Cameron,	85,912	....	171,117	94,816	351,845
Centre,	3,329,370	5,890,613	10,153,382	3,931,322	23,304,687
Clarion,	4,465,125	4.981,252	7,319,278	3,450,851	20,216,506
Clearfield,	39,383,430	52,875,513	65,950,561	23,383,879	181,593,383
Clinton,	289,074	1,487,238	3,078,510	984,559	5,839,381
Elk,	4,897,789	8,098,458	13,040,545	3,696,441	29,733,233
Fayette,	41,557,215	98,035,467	230,413,646	91,640,714	461,647,042
Greene,	15,060	....	1,023,354	324,896	1,363,310
Huntingdon,	2,367,783	2,992,724	4,970,942	2,579,289	12,910,738
Indiana,	1,058,249	5,386,004	49,709,424	28,744,014	84,897,691
Jefferson,	13,054,914	48,428,933	59,719,814	16,627,253	137,830,914
Lawrence,	887,602	1,802,249	1,762,337	239,988	4,692,176
Lycoming,	731,355	706,753	594,129	52,157	2,084,394
McKean,	437,694	301,002	49,756	....	788,452
Mercer,	4,890,039	4,602,435	7,740,031	2,503,016	19,735,521
Somerset,	3,037,168	12,717,727	62,580,756	27,261,863	105,597,514
Sullivan,	....	90,538	....	....	90,538
Tioga,	11,219,042	8,567,289	8,961,509	2,901,833	31,649,673
Venango,	85,266	....	....	....	85,266
Washington,	12,587,496	37,826,551	112,978,802	50,589,869	218,982,218
Westmoreland,	49,377,280	101,183,033	222,761,575	87,293,885	460,615.773
	....	*26,278	....	....	26,278
Totals,	265,662,303	544,970,363	1,181,124,985	475,985,480	2,467,743,181

*Production of small mines not under provision of law.

TABLE L.—Production of coke by counties, by decades, 1880-1913, inclusive

Counties	1880-1889 Net Tons	1890-1899 Net Tons	1900-1909 Net Tons	1910-1913 Net Tons	Total Net Tons
Allegheny,	257,943	361,312	3,731	2,694	625,680
Armstrong,	113,311	31,883	28,706	397	174,297
Beaver,	17,740	236	....	....	17,976
Bedford,	304,382	325,816	827,470	251,096	1,708,764
Blair,	822,508	463,236	557,797	119,009	1,962,550
Bradford,	....	263,474	....	....	263,474
Butler,	65,357	4,720	....	....	70,077
Cambria,	974,410	1,924,033	6,544,693	3,478,801	12,921,937
Cameron,	6,228	....	66,272	23,241	95,741
Centre,	153,518	229,703	11,921	....	395,142
Clarion,	114,164	....	....	....	114,164
Clearfield,	557,817	1,547,059	1,488,988	830,183	4,424,047
Elk,	41,330	62,516	234,268	46,554	384,668
Fayette,	23,126,542	43,792,415	98,295,379	60,693,922	225,908,258
Greene,	....	....	....	33,636	33,636
Huntingdon,	499,583	127,282	87,314	21,120	735,299
Indiana,	127,336	322,750	968,491	416,986	1,835,563
Jefferson,	977,062	3,906,577	6,041,435	2,159,076	13,084,150
Lawrence,	20,461	....	....	....	20,461
Somerset,	207,766	128,508	264,977	40,724	641,975
Sullivan,	....	....	....	....	....
Tioga,	420,915	9,636	....	....	430,551
Washington.	148,700	10,900	835,502	2,344,171	3,339,273
Westmoreland,	12,934,742	27,114,090	50,643,996	22,646,366	113,339,194
Totals,	41,891,815	80,626,146	166,900,940	93,107,976	382,526,877

TABLE M.—Fatal accidents per 1,000 employes inside and outside the mines and production per fatal accident, by decades, 1877-1913, inclusive

Years	Employes	Fatal accidents	Fatalities per 1,000 employed	Production, net tons	Production per fatality	Fatalities per 1,000,000 tons produced
1877,	16,627	13	.78	*1,305,932	100,456	9.95
1878,	25,787	48	1.86	12,500,741	260,432	3.84
1879,	27,286	55	2.01	14,341,369	242,570	3.82
1880,	33,391	48	1.43	16,564,440	345,092	2.90
1881,	35,530	57	1.60	15,916,123	279,230	3.58
1882,	42,393	94	2.22	20,694,110	220,150	4.54
1883,	35,091	54	1.54	18,729,817	346,848	5.02
1884,	39,904	105	2.63	20,553,090	195,744	5.11
1885,	44,145	83	1.88	23,413,692	282,092	3.54
1886,	52,364	74	1.41	27,107,173	366,313	2.73
Totals and percentages,	352,518	631	1.79	171,126,487	271,199	3.69
1887,	57,868	84	2.14	29,966,355	356,748	2.80
1888,	61,565	90	1.46	33,772,286	375,248	2.66
1889,	62,084	105	1.69	34,625,054	329,762	3.03
1890,	67,383	146	2.17	40,884,103	273,179	3.57
1891,	74,135	237	3.20	41,805,642	176,395	5.67
1892,	78,805	134	1.70	46,581,575	347,623	2.88
1893,	81,872	131	1.60	43,421,398	334,015	3.02
1894,	86,118	123	1.50	39,800,310	320,969	3.09
1895,	84,976	156	1.84	51,818,112	332,167	3.01
1896,	83,801	180	2.15	50,284,692	279,359	3.58
Totals and percentages,	738,607	1,386	1.88	412,960,427	297,951	3.35
1897,	86,553	150	1.73	54,625,272	364,168	2.75
1898,	87,803	200	2.28	64,247,665	321,238	3.11
1899,	91,505	258	2.82	73,066,945	283,205	3.53
1900,	108,735	265	2.44	79,318,362	299,315	3.34
1901,	117,501	301	2.56	80,914,236	268,818	3.72
1902,	135,611	456	3.36	98,529,122	216,072	4.63
1903,	151,745	402	2.65	103,713,982	257,995	3.88
1904,	155,747	536	3.44	99,600,167	185,821	5.38
1905,	164,941	479	2.90	119,361,514	249,189	4.01
1906,	172,928	477	2.76	129,532,989	271,557	3.68
Totals and percentages,	1,273,069	3,524	2.77	902,910,254	256,217	3.90
1907,	183,121	806	4.40	149,559,047	185,557	5.39
1908,	181,840	572	3.15	114,937,375	200,939	4.98
1909,	185,921	506	2.72	136,205,695	269,181	3.71
1910,	193,488	539	2.79	148,770,858	276,013	3.62
1911,	182,653	515	2.82	142,189,329	276,096	3.62
1912,	182,642	446	2.44	160,830,492	360,606	2.77
1913,	189,909	611	3.22	172,965,659	283,086	3.53
Totals and percentages,	1,299,574	3,995	3.07	1,025,458,455	256,685	3.90
Grand totals and percentages,	3,663,768	9,536	2.60	2,512,455,623	263,471	3.80

*Three inspectors took office October 1. Data given for last three months of year.

TABLE N.—Production of coal in net tons, by pick mining, compressed air and electric power, 1899-1913, inclusive

Years	Pick	Percentages	Compressed air machines	Percentages	Electric machines	Percentages	Total production
1899,	44,131,781	60.40	15,501,744	21.22	13,433,420	18.38	73,066,945
1900,	46,739,235	58.93	18,196,927	22.94	14,382,200	18.13	79,318,362
1901,	51,621,167	63.80	17,145,799	21.19	12,147,270	15.01	80,914,236
1902,	62,203,097	63.19	17,945,432	18.21	18,380,593	18.66	98,529,122
1903,	65,162,906	62.83	20,106,340	19.39	18,444,236	17.78	103,713,482
1904,	61,096,511	61.34	20,904,575	20.99	17,599,081	17.67	99,600,167
1905,	68,900,085	57.73	26,805,191	22.46	23,656,238	19.81	119,361,514
1906,	75,117,053	57.99	24,988,171	19.29	29,427,765	22.72	129,532,989
1907,	89,443,116	59.81	29,273,217	19.57	30,842,714	20.62	149,559,047
1908,	63,549,572	55.29	23,926,398	20.82	27,461,405	23.89	114,937,375
1909,	76,320,132	56.03	28,832,604	21.17	31,052,959	22.80	136,205,695
1910,	79,332,300	53.32	30,910,161	20.78	38,528,097	25.90	148,770,558
1911,	72,549,017	51.02	28,165,748	19.81	41,474,564	29.17	142,189,329
1912,	78,221,454	48.64	29,173,552	18.14	53,435,486	33.22	160,830,492
1913,	81,997,648	47.41	24,260,320	14.02	66,707,691	38.57	172,965,659
Totals and percentages,	1,016,385,074	56.17	356,136,679	19.68	436,974,019	24.15	1,809,495,772

TABLE O.—Mines using mining machines, number of machines and motive power used to operate them, production by machines and pick mining, by districts, 1913

Districts	Number of mines in which machines are used	Number of machines operated by electricity	Number of machines operated by compressed air	Total number of mining machines	Tons produced by electric machines	Tons produced by compressed air machines	Tons produced by pick mining	Total production	Percentages by electric machines	Percentages by compressed air machines	Percentages by pick mining
First,	17	167	......	167	3,681,165	....	1,194,974	4,876,139	75.49	.....	24.51
Second,	15	34	52	86	1,226,367	487,918	7,323,189	9,037,469	13.57	5.40	81.03
Third,	39	90	135	225	1,289,851	1,006,559	1,674,871	3,970,281	32.49	25.33	42.18
Fourth,	27	117	153	270	935,940	1,775,535	2,352,813	5,064,288	18.48	35.06	46.46
Fifth,	12	10	40	50	120,519	635,033	6,307,274	7,062,826	1.71	8.99	89.30
Sixth,	14	89	66	155	732,664	720,388	4,857,337	6,310,389	11.61	11.41	76.98
Seventh,	30	313	......	313	5,118,817	....	1,152,293	6,271,110	81.62	.....	18.38
Eighth,	13	73	34	107	1,011,250	210,049	3,405,968	4,627,267	21.85	73.61	4.54
Ninth,	13	76	28	104	2,005,299	354,944	5,859,257	8,219,500	24.39	4.32	71.29
Tenth,	20	140	94	234	2,154,613	550,204	2,346,764	5,051,581	42.65	10.89	46.46
Eleventh,	11	10	58	68	118,720	872,315	6,771,629	7,762,664	1.53	11.24	87.23
Twelfth,	31	42	354	396	668,306	3,454,590	1,730,298	5,853,194	11.42	59.02	29.56
Thirteenth,	15	153	......	153	3,491,671	....	867,218	4,358,889	80.10	.....	19.90
Fourteenth,	36	163	99	262	4,818,340	752,602	2,131,171	7,702,113	62.56	9.77	28.67
Fifteenth,	35	204	155	359	2,445,983	1,191,034	2,328,245	5,965,262	41.00	19.97	39.03
Sixteenth,	24	58	150	208	1,516,515	2,380,168	2,929,043	6,825,726	22.22	34.87	42.91
Seventeenth,	19	210	25	235	4,497,302	125,861	1,592,454	6,215,617	72.36	2.03	25.61
Eighteenth,	9	10	79	89	189,111	669,384	3,953,871	4,812,366	3.93	13.91	82.16
Nineteenth,	18	112	78	190	3,134,695	1,613,629	3,869,664	8,617,988	36.38	18.73	44.89
Twentieth,	30	151	69	220	1,502,827	372,076	4,768,563	6,643,466	22.62	5.60	71.78
Twenty-first,	18	128	57	185	4,259,102	746,549	1,451,200	6,456,851	65.96	11.56	22.48
Twenty-second,	17	155	3	158	3,485,878	42,466	1,715,690	5,244,034	66.47	.81	32.72
Twenty-third,	17	36	59	95	1,011,940	1,295,571	4,599,984	6,907,495	14.65	18.76	66.59
Twenty-fourth,	19	268	226	494	2,668,076	1,645,503	1,749,382	6,062,961	44.01	27.14	28.85
Twenty-fifth,	23	89	488	577	2,849,325	1,918,826	1,654,418	6,422,569	44.37	29.88	25.75
Twenty-sixth,	24	281	41	322	4,748,216	168,280	907,412	5,823,908	81.53	2.89	15.58
Twenty-seventh,	14	125	......	125	3,835,927	....	1,171,209	5,007,136	76.61	.....	23.39
Twenty-eighth,	24	67	287	354	3,189,272	1,271,841	1,331,457	5,792,570	55.06	21.96	22.98
Totals and percentages,	590	3,365	2,830	6,195	66,707,691	24,260,320	81,997,648	172,965,659	38.57	14.07	47.41

BITUMINOUS DISTRICTS

6—23—1914

FIRST DISTRICT

WASHINGTON COUNTY

Monongahela, Pa., February 7, 1914.

Hon. James E. Roderick, Chief of Department of Mines:

Sir: In compliance with the Act of Assembly of June 9, 1911, I herewith submit my report for the First Bituminous District for the year ending December 31, 1913. I regret to report that a serious explosion occurred in the Cincinnati Mine of the Monongahela River Consolidated Coal and Coke Company, April 23, in which ninety-seven lives were lost.

Respectfully submitted,

ALEXANDER McCANCH, Inspector.

SUMMARY OF STATISTICS

Number of mines,	17
Number of mines in operation,	17
Number of tons of coal shipped to market,	3,871,507
Number of tons used at mines for steam and heat,	69,989
Number of tons sold to local trade and used by employes,	34,278
Number of tons used in the manufacture of coke,	900,365
Number of tons of coal produced,	4,876,139
Number of tons of coke produced,	504,843
Number of coke ovens,	782
Number of coke ovens in operation,	782
Number of tons of coal produced by pick mining,	1,194,974
Number of tons produced by compressed air machines,	....
Number of tons produced by electrical machines,	3,681,165
Number of persons employed inside of mines,	4,852
Number of persons employed outside, including coke workers,	980
Number of persons employed at manufacture of coke,	228
Number of fatal accidents inside of mines,	100
Number of fatal accidents outside,	1
Number of non-fatal accidents inside of mines,	38
Number of non-fatal accidents outside,	2
Number of tons of coal produced per fatal accident inside,	44,735
Number of tons produced per fatal accident outside,	4,876,139
Number of tons produced per fatal accident inside and outside,	44,328
Number of persons employed per fatal accident inside,	44
Number of persons employed per fatal accident outside,	980
Number of persons employed per fatal accident inside and outside,	53
Number of persons employed per non-fatal accidents inside,	128
Number of persons employed per non-fatal accident outside,	490
Number of persons employed per non-fatal accident inside and outside,	146
Number of wives made widows,	64
Number of children made orphans,	145
Number of steam locomotives used inside of mines,	....
Number of steam locomotives used outside,	....
Number of compressed air locomotives used inside,	....
Number of compressed air locomotives used outside,	....
Number of electric motors used inside,	98
Number of electric motors used outside,	4
Number of gasoline locomotives used inside,	....
Number of fans in use,	16
Number of furnaces in use,	....
Number of gaseous mines in operation,	16
Number of non-gaseous mines in operation,	1
Number of new mines opened,	....
Number of old mines abandoned,	....

TABLE A

PRODUCTION OF COAL

Names of Operators	Tons
Ellsworth Collieries Company,	1,822,305
Pittsburgh-Westmoreland Coal Company,	1,711,465
Monongahela River Consolidated Coal and Coke Company,	932,740
Star Coal Company,	221,863
Ollett Brothers Coal Company,	112,171
Carnegie Coal Company,	75,595
Total,	4,876,139

Production by Counties

Washington,	4,876,139

TABLE B.—Fatal and non-fatal accidents inside and outside of mines; number of tons of coal produced per accident; number of persons employed; number employed per accident

Names of Operators	Fatal Accidents			Non-Fatal Accidents			Tons of coal produced per fatal accident inside	Tons of coal produced per non-fatal accident inside	Number of employes inside	Number of employes outside	Total number of employes	Number of employes inside per fatal accident	Number of employes outside per fatal accident	Number of employes inside per non-fatal accident	Number of employes outside per non-fatal accident
	Inside	Outside	Total	Inside	Outside	Total									
Ellsworth Collieries Co.,	6	1	7	11	......	11	303,717	165,664	1,519	475	1,994	253	475	138	....
Pittsburgh-Westmoreland Coal Co.,	8	......	8	13	2	15	570,488	181,651	1,793	323	2,116	598	....	138	161
Monongahela River Consolidated Coal and Coke Co.,	99	......	99	2	......	2	9,422	466,370	959	114	1,073	10	....	479	....
Star Coal Co.,	1	......	1	6	......	6	221,863	36,977	186	27	213	186	....	31	....
Ollett Brothers Coal Co.,	......	......	......	2	......	2	....	56,085	95	10	105	....	....	47	....
Carnegie Coal Co.,	......	......	......	4	......	4	....	18,899	300	31	331	....	....	75	....
Totals and averages for district,	109	1	110	38	2	40	44,735	128,319	4,852	980	5,832	44	980	128	490

TABLE C.—Classification of Fatal Accidents Inside and Outside of Mines

	Months													
	January	February	March	April	May	June	July	August	September	October	November	December	Totals	Percentages
Causes of Accidents Inside														
Falls of coal,	....	....	....	....	....	....	....	....	....	....	1	....	1	.92
Falls of slate,	1	1	....	1	....	....	....	1	....	....	1	....	5	4.58
Falls of roof,	....	....	....	1	....	....	....	....	....	....	....	....	1	.91
Mine cars,	1	....	....	....	....	1	....	....	1	1	....	....	4	3.67
Explosions of gas and dust,	....	....	....	97	....	....	....	....	....	....	....	....	97	89.00
Electricity,	....	....	....	....	....	1	....	....	....	....	....	....	1	.92
Totals,	2	1	....	99	....	2	....	1	1	1	2	....	109	100.00
Causes of Accidents Outside														
Cars,	....	....	....	....	....	....	....	....	1	....	....	....	1	100.00
Totals,	....	....	....	....	....	....	....	....	1	....	....	....	1	......
Grand totals inside and outside,	2	1	....	99	....	2	....	1	2	1	2	....	110	......

TABLE D.—Classification of Non-Fatal Accidents Inside and Outside of Mines

	Months													
	January	February	March	April	May	June	July	August	September	October	November	December	Totals	Percentages
Causes of Accidents Inside														
Falls of coal,	....	....	....	....	....	....	1	....	....	....	....	....	1	2.63
Falls of slate,	....	....	....	....	3	1	2	....	....	2	2	....	10	26.32
Falls of roof,	....	1	1	....	1	....	....	1	1	....	3	....	8	21.05
Mine cars,	1	1	1	....	1	1	1	1	1	2	1	....	11	28.95
Blasts, premature and otherwise,	....	....	....	....	....	....	....	....	....	....	....	1	1	2.63
Machinery,	1	....	....	....	....	....	....	....	3	1	....	....	5	13.16
Injured by cage,	....	1	....	....	....	....	....	....	....	....	....	....	1	2.63
Struck by piece of slate,	....	....	....	....	....	....	1	....	....	....	....	....	1	2.63
Totals,	2	3	2	....	5	2	5	2	5	5	6	1	38	100.00
Causes of Accidents Outside														
Cars,	....	....	....	....	....	....	....	....	....	1	....	....	1	50.00
Machinery,	....	....	....	....	....	....	1	....	....	....	....	....	1	50.00
Totals,	....	....	....	....	....	....	1	....	....	1	....	....	2	100.00
Grand totals inside and outside,	2	3	2	....	5	2	6	2	5	6	6	1	40	......

TABLE E.—Occupations of Persons Killed or Fatally Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
Inside													
Mine foremen,	....	....	....	1	....	....	....	....	....	....	....	....	1
Assistant mine foremen,	....	....	....	1	....	....	....	....	....	....	....	....	1
Miners,	....	....	....	12	....	....	....	1	1	....	....	....	14
Machine runners,	....	....	....	6	....	1	....	....	....	....	....	....	7
Machine loaders,	1	1	....	53	....	....	....	....	....	....	1	....	56
Machine scrapers,	....	....	....	....	....	....	....	....	....	....	1	....	1
Drivers and runners,	1	....	....	10	....	1	....	....	....	1	....	....	13
Doorboys and helpers,	....	....	....	1	....	....	....	....	....	....	....	....	1
Company men,	....	....	....	15	....	....	....	....	....	....	....	....	15
Totals,	2	1	....	99	....	2	....	1	1	1	2	....	109
Outside													
Company men,	....	....	....	....	....	....	....	....	1	....	....	....	1
Totals,	....	....	....	....	....	....	....	....	1	....	....	....	1
Grand totals inside and outside,	2	1	....	99	....	2	....	1	2	1	2	....	110

TABLE F.—Occupations of Persons Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
Inside													
Miners,	....	....	1	....	3	....	2	....	....	....	....	....	6
Machine runners,	....	....	....	....	....	....	....	....	2	1	....	....	3
Machine loaders,	....	1	1	....	....	2	1	....	1	2	5	....	13
Machine scrapers,	1	....	....	....	....	....	....	1	....	....	....	....	2
Drivers and runners,	....	1	....	....	1	....	1	1	....	1	....	....	5
Company men,	1	1	....	....	1	....	1	....	2	1	1	1	9
Totals,	2	3	2	....	5	2	5	2	5	5	6	1	38
Outside													
Engineers and firemen,	....	....	....	....	....	....	1	....	....	....	....	....	1
Company men,	....	....	....	....	....	....	....	....	....	1	....	....	1
Totals,	....	....	....	....	....	....	1	....	....	1	....	....	2
Grand totals inside and outside,	2	3	2	....	5	2	6	2	5	6	6	1	40

TABLE G.—Nationality of Persons Killed or Fatally Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
American,	1	....	....	39	....	....	....	....	....	....	....	....	40
English,	....	....	....	3	....	....	....	....	....	....	....	....	3
Welsh,	....	....	....	1	....	....	....	....	....	....	....	....	1
Scotch,	....	....	....	5	....	....	....	....	....	....	....	....	5
Polish,	....	....	....	....	....	....	....	....	....	....	1	....	1
Hungarian,	....	....	....	1	....	....	....	....	....	....	....	....	1
Italian,	....	....	....	14	....	....	....	....	2	1	....	....	17
Slavonian,	1	....	....	....	....	1	....	1	....	....	1	....	4
Lithuanian,	....	1	....	....	....	1	....	....	....	....	....	....	2
Austrian,	....	....	....	9	....	....	....	....	....	....	....	....	9
Russian,	....	....	....	23	....	....	....	....	....	....	....	....	23
French,	....	....	....	1	....	....	....	....	....	....	....	....	1
Belgian,	....	....	....	2	....	....	....	....	....	....	....	....	2
Nationality unknown,	....	....	....	1	....	....	....	....	....	....	....	....	1
Totals,	2	1	....	99	....	2	....	1	2	1	2	....	110

TABLE H.—Nationality of Persons Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
American,	....	....	....	....	3	....	1	....	2	....	....	....	6
English,	....	....	....	....	....	....	1	....	1	....	....	....	2
German,	....	....	....	....	....	....	....	....	....	....	....	1	1
Polish,	....	....	....	....	....	....	....	1	1	....	1	....	3
Italian,	....	3	1	....	....	1	2	1	....	....	2	....	10
Slavonian,	1	....	1	....	2	1	1	....	1	2	1	....	10
Lithuanian,	....	....	....	....	....	....	....	....	....	....	1	....	1
Austrian,	....	....	....	....	....	....	....	....	....	1	....	....	1
Russian,	1	....	....	....	....	....	1	....	....	1	....	....	3
French,	....	....	....	....	....	....	....	....	....	1	....	....	1
Granish,	....	....	....	....	....	....	....	....	....	1	....	....	1
Horwat,	....	....	....	....	....	....	....	....	....	....	1	....	1
Totals,	2	3	2	....	5	2	6	2	5	6	6	1	40

TABLE I.—Operators and mines, kind of openings, type and size of fans, size of furnaces, volume of air produced by fan or furnace per minute, number of splits of air currents and number of persons employed inside

Names of Operators and Mines	Kind of opening	Gaseous or non-gaseous	Method of ventilation	Diameter of fan in feet and inches	Width of blades in feet and inches	Depth of blades in feet and inches	Number of revolutions per minute	Water gauge developed—in inches	Name of fan	Power used	Number of splits of air currents	Number of cubic feet of air per minute entering the mine at inlet	Total number of cubic feet of air per minute circulating in all the splits	Number of cubic feet of air per minute passing out at outlet	Number of persons employed inside
Ellsworth Collieries Co.															
Ellsworth No. 1, ...	Shaft, ...	Gaseous, .	Fan, ...	13	5.0	6.5	228	3.5	Capell, ...	Electricity,	10	197,600	171,600	200,000	457
Ellsworth No. 2, ...	Shaft, ...	Gaseous, .	Fan, ...	13	5.0	6.5	240	3.4	Capell, ...	Steam,......	9	173,300	112,590	180,000	445
Ellsworth Nos. 3 and 4, ..	Shaft, ...	Gaseous, .	Fans, ...	15	7.0	5.7	200	6.2	Capell, ...	Steam,......	11	304,540	170,040	312,560	545
				15	7.0	5.7	198	6.0							
Pittsburgh-Westmoreland Coal Co.															
Acme Nos. 1 and 2, ...	Shaft and Slope,	Gaseous,	Fan, ...	20	6.4	6.0	115	3.0	Lepley, ...	Steam,..	13	184,000	122,490	190,000	484
Dunkirk, ...	Slope,.....	Gaseous, .	Fan, ...	16	4.6	6.6	100	3.0	Pollock, ...		7	78,400	62,550	81,260	200
Hazel Kirk Nos. 1 and 3,	Shaft and Slope,	Gaseous,	Fan, ...	11	6.0	4.0	208	2.1	Capell, ...		6	159,500	83,840	161,642	232
Hazel Kirk No. 2, ...	Shaft, ...	Gaseous, .	Fan, ...	20	6.0	6.0	100	2.0	Pollock, ...		4	65,200	44,580	68,720	213
Shoenberger, ...	Drift, ...	Gaseous, .	Fan, ...	11	7.0	5.7	189	1.8	Capell, ...		4	125,500	87,200	123,640	190
Monongahela River Consolidated Coal and Coke Co.															
Black Diamond, ...	Drift, ...	Gaseous, .	Fans, ...	20	6.0	6.0	90	1.6	Pollock, ...	Steam,......	9	150,800	95,080	154,840	385
				8	3.3	3.3	400	.7	Stine, ...	Electricity,					
Catsburg, ...	Drift, ...	Gaseous, .	Fan, ...	16	7.0	7.0	180	2.0	Capell, ...	Steam,......	5	101,200	54,910	106,400	203
Cincinnati, ...	Drift, ...	Gaseous, .	Fan, ...	12	6.5	3.0	156	2.4	Capell, ...	Electricity,.	8	126,600	101,940	180,000	220

Star Coal Co. Star, ...	Drift, ...	Gaseous, ..	Fan, ...	6	4.0	.5	182	1.0	Sirocco, ...	Steam, ...	5	62,370	40,000	64,640	130
Ollett Brothers Coal Co. Donora, ...	Drift, ...	Non-gas.,	Fan, ...	5.0	2.0	2.3	520	.3	Stine, ...	Electricity,	1	28,400	21,600	30,000	55
Carnegie Coal Co. Charleroi, ...	Drift, ...	Gaseous, .	Fan, ...	10	5.0	.75	180	2.0	Sirocco, ...	Steam, ...	8	175,000	125,000	184,000	300

TABLE J.—Mines using coal cutting machines, power used, geological and local names of seams, thickest and thinnest seams where machines are used, and the approximate number of tons produced by machines

Names of Operators	Names of Mines	Kind of opening	Gaseous or non-gaseous	Number of mining machines used	Power used by machines	Geological and local names of seams	Average thickness in inches	Height of Seam in Inches		Approximate number of tons produced by machines
								Thickest	Thinnest	
Ellsworth Collieries Co.,	Ellsworth No. 1,	Shaft,	Gaseous,	18	Electricity,	Pittsburgh,	75	78	72	457,794
	Ellsworth No. 2,	Shaft,	Gaseous,	18						444,698
	Ellsworth Nos. 3 and 4,	Shafts,	Gaseous,	16						439,273
Totals,				52						1,341,765
Pittsburgh-Westmoreland Coal Co.,	Acme Nos. 1 and 2,	Shaft and Slope,	Gaseous,	17	Electricity,	Pittsburgh,	74	75	73	529,926
	Dunkirk,	Slope,	Gaseous,	10			70	76	64	192,321
	Hazel Kirk Nos. 1 and 3,	Shaft and Slope,	Gaseous,	11			66	70	62	213,926
	Hazel Kirk No. 2,	Shaft,	Gaseous,	9			68	72	64	223,836
	Shoenberger,	Drift,	Gaseous,	4			70	72	68	216,944
Totals,				51						1,376,953
Monongahela River Consolidated Coal and Coke Co.,	Black Diamond,	Drift,	Gaseous,	16	Electricity,	Pittsburgh,	65	67	63	374,468
	Catsburg,	Drift,	Gaseous,	14			67	72	63	193,674
	Cincinnati,	Drift,	Gaseous,	6			66	72	60	104,948
Totals,				36						673,090

Star Coal Co.,	Star,	Drift,	Gaseous,	5	Electricity,	Pittsburgh,	66	72	60	120,725
Ollett Brothers Coal Co.,	Donora,	Drift,	Non-gas.,	3	Electricity,	Pittsburgh,	69	72	66	95,346
Carnegie Coal Co.,	Charleroi,	Drift,	Gaseous,	20	Electricity,	Pittsburgh,	72	78	66	73,286
Grand totals,				167						3,681,165

TABLE 1.—Operators, Location of Mines, Railroads, etc.

Names of Operators and Mines	County	Name of General Superintendent	Post Office	Name of Superintendent	Post Office	Railroad to Mine
Ellsworth Collieries Co.						
Ellsworth Nos. 1 and 2, ..	Washington, ..	W. A. Luce, ...	Pittsburgh, ...	F. B. Dunbar, ...	Ellsworth, ...	Pennsylvania
Ellsworth Nos. 3 and 4, ..				W. E. Lahm, ...	Cokeburg, ...	
Pittsburgh-Westmoreland Coal Co.						
Acme Nos. 1 and 2, ...	Washington, ..	H. K. Knopf, ...	Pittsburgh, ...	Thomas Tudor, ...	Bentleyville, ...	Pennsylvania
Dunkirk, ...				James Maize, ...	Monongahela, ...	
Hazel Kirk Nos. 1 and 3, ..				William Bird, ...	Ivanhoe, ...	
Hazel Kirk No. 2, ...				James Stephenson, ..	Van Voorhis, ...	
Shoenberger, ...				W. S. Lewis, ...	Monongahela, ...	
Monongahela River Consolidated Coal and Coke Co.						
Black Diamond, ...	Washington, ..	George W. Schluederberg,	Pittsburgh, ...	A. P. Cochrane, ...	Monongahela, ...	Pennsylvania
Catsburg, ...				A. P. Cochrane, ...	Monongahela, ...	
Cincinnati, ...				William Carter, ...	Hackett, ...	
Star Coal Co.						
Star, ...	Washington, ...	Nin McQuillen, ...	Woodland, ...	John C. Rue, ...	Monongahela, ...	Pennsylvania
Ollett Brothers Coal Co.						
Donora, ...	Washington, ...	Fred B. Ollett, ...	Donora, ...	Fred B. Ollett, ...	Donora, ...	Pennsylvania
Carnegie Coal Co.						
Charleroi, ...	Washington, ...	George F. Osler, ...	Pittsburgh, ...	C. W. Hall, ...	Charleroi, ...	Pennsylvania

TABLE 2.—Number of tons of coal mined and tons of coke produced, number of days worked, number of persons employed, number killed and injured, quantity of powder, dynamite and permissible explosives used, etc.

Names of Operators and Mines	County	Number of tons of coal shipped to market	Number of tons used at mines for steam and heat	Number of tons sold to local trade and used by employes	Number of tons used in manufacture of coke	Total production of coal in tons	Total production of coke in tons	Number of coke ovens	Number of days worked	Number of employes	Number of fatal accidents	Number of non-fatal accidents	Explosives			Number of horses and mules
													Number of pounds of powder used	Number of pounds of dynamite used	Number of pounds of permissible explosives used	
Ellsworth Collieries Co.																
Ellsworth No. 1, ...	Washington, ..	408,481	....	....	214,853	618,284	145,217	204	269	637	3	5	....	....	53,311	14
Ellsworth No. 2, ...		435,387	4,898	3,489	*169,269	612,993	....	......	263	595	3	....	....	....	48,951	14
Ellsworth Nos. 3 and 4,		366,329	4,544	2,282	217,893	591,028	162,698	278	259	762	1	6	....	....	49,622	48
Totals, ...	....	1,205,147	9,442	5,701	602,015	1,822,305	307,915	482	......	1,994	7	11	....	....	151,884	76
Pittsburgh-Westmoreland Coal Co.																
Acme Nos. 1 and 2, ...	Washington, ..	340,166	12,292	6,683	298,350	657,491	196,928	300	266	860	1	....	....	....	54,781	60
Dunkirk, ...		221,128	2,642	2,118	....	225,888	....	......	229	259	....	3	25,382	....	3,486	22
Hazel Kirk Nos. 1 and 3,		259,588	5,723	2,910	....	268,221	....	......	224	357	1	2	24,674	....	9,338	31
Hazel Kirk No. 2, ...		270,488	3,940	2,675	....	277,108	....	......	235	355	1	6	....	....	23,781	26
Shoenberger, ...		275,049	5,298	2,415	....	282,763	....	......	254	285	....	4	42,175	....	698	24
Totals, ...	....	1,366,419	29,895	16,801	298,350	1,711,465	196,928	300	......	2,116	3	15	92,231	....	92,084	163
Monongahela River Consolidated Coal and Coke Co.																
Black Diamond, ...	Washington, ..	493,596	10,392	75	....	504,063	....	......	284	504	....	....	91,905	....	2,782	35
Catsburg, ...		260,584	7,247	2,362	....	270,193	....	......	282	317	1	2	....	1,200	97,927	26
Cincinnati, ...		148,761	9,698	25	....	158,484	....	......	227	252	98	....	....	....	11,845	23
Totals, ...	....	902,941	27,337	2,462	....	932,740	....	......	......	1,073	99	2	91,905	1,200	112,554	84

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*Coked at Nos. 1, 3 and 4 mines.

TABLE 2.—Continued

Names of Operators and Mines	County	Number of tons of coal shipped to market	Number of tons used at mines for steam and heat	Number of tons sold to local trade and used by employes	Number of tons used in manufacture of coke	Total production of coal in tons	Total production of coke in tons	Number of coke ovens	Number of days worked	Number of employes	Number of fatal accidents	Number of non-fatal accidents	Explosives			Number of horses and mules
													Number of pounds of powder used	Number of pounds of dynamite used	Number of pounds of permissible explosives used	
Star Coal Co. Star,	Washington,	219,456	1,191	1,216	....	221,863	....	......	287	213	1	6	23,000	....	....	16
Ollett Brothers Coal Co. Donora,	Washington,	104,091	....	8,080	....	112,171	....	......	280	105	....	2	....	....	....	6
Carnegie Coal Co. Charleroi,	Washington,	73,453	2,124	18	....	75,595	....	......	68	331	....	4	8,400	....	400	2
Grand totals,	....	3,871,507	69,989	34,278	900,365	4,876,139	504,843	782	......	5,832	110	40	215,536	1,200	356,922	347

TABLE 2—Part 2

Names of Operators	County	Number of Boilers					Locomotives				Number of steam engines of all classes	Total horse power	Number of pumps delivering water to surface	Capacity in gallons per minute	Quantity delivered to surface per minute—gallons	Number of electric dynamos	Number of air compressors
		Cylindrical	Horse power	Tubular	Horse power	Total horse power	Gasoline	Steam	Air	Electric							
Ellsworth Collieries Co., ...	Washington, .	......	......	28	6,250	6,250	...	....	....	64	24	6,295	6	1,625	410	7	1
Pittsburgh-Westmoreland Coal Co., ...		......	......	31	4,450	4,450	...	....	....	16	30	4,380	17	2,350	1,550	13	......
Monongahela River Consolidated Coal and Coke Co., ...		......	......	19	3,075	3,075	....	....	....	11	17	2,100	8	1,220	1,180	6	......
Star Coal Co., ...		......	......	3	300	300	....	....	....	1	4	250	3	100	25	1	......
Ollett Brothers Coal Co., ...		......	......	....	....	....	....	....	....	1	......	....	3	320	320	......	......
Carnegie Coal Co., ...		......	......	2	160	160	....	....	....	9	3	350	13	325	325	......	......
Totals, ...	....	......	......	83	14,235	14,235	....	....	....	102	78	13,375	50	5,940	3,810	27	1

TABLE 3.—Number of Each Class of Employes Inside and Outside of Mines

Names of Operators	County	Inside												Outside								Grand total inside and outside
		Mine foremen	Assistant mine foremen	Fire bosses	Miners	Machine runners	Machine loaders	Machine scrapers	Drivers and runners	Doorboys and helpers	Company men	All other employes	Total inside	Superintendents	Foremen	Blacksmiths and carpenters	Engineers and firemen	Coke employes	Bookkeepers and clerks	All other employes	Total outside	
Ellsworth Collieries Co., ...	Washington, ..	3	18	18	315	52	665	52	115	22	259	......	1,519	3	9	37	58	160	20	188	475	1,994
Pittsburgh-Westmoreland Coal Co., ...		7	11	16	321	82	938	75	149	21	27	146	1,798	6	12	32	40	68	7	158	323	2,116
Monongahela River Consolidated Coal and Coke Co., ...		3	10	15	274	33	377	33	84	6	94	30	959	2	3	17	23	....	5	64	114	1,073
Star Coal Co., ...		1	3	2	25	6	110	6	14	3	16	......	186	1	1	3	3	....	1	18	27	213
Ollett Brothers Coal Co., ...		1	1	....	11	3	64	3	7	....	5	......	95	....	1	2	....	....	1	6	10	105
Carnegie Coal Co., ...		1	3	3	10	15	206	15	2	....	45	......	300	1	1	3	4	....	2	20	31	331
Totals, ...	....	16	46	54	956	191	2,360	184	371	52	446	176	4,852	13	27	94	128	228	36	454	980	5,832

TABLE 3.—Part 2

Names of Operators	County	Average Number of Days Worked												
		January	February	March	April	May	June	July	August	September	October	November	December	Total
Ellsworth Collieries Co.,	Washington,	23	20	23	21	22	23	25	23	22	24	21	17	264
Pittsburgh-Westmoreland Coal Co.,		22	14	17	23	24	23	23	24	22	24	23	8	242
Monongahela River Consolidated Coal and Coke Co.,		24	24	22	22	15	16	24	23	23	25	21	25	264
Star Coal Co.,		16	22	26	23	26	25	25	25	23	27	23	26	287
Ollett Brothers Coal Co.,		22	21	23	23	26	21	26	25	22	24	23	24	280
Carnegie Coal Co.,		......	......	......	......	......	......	.....	......	13	25	20	10	68

TABLE 4.—Fatal Accidents Inside and Outside of Mines

Date of accident		Name of Person	Nationality	Occupation	Age	Married or single	Number of widows	Number of orphans	Name of Mine	County	Nature and Cause of Accident in Brief
Jan.	2	Clarence Jackson, ...	American, ..	Driver, ...	18	S.	....	....	Cincinnati, ...	Washington,	Fatally injured by being caught between floor of mine and floor of mine car on one of the side tracks. In some unknown way he fell from the front of the trip.
	21	Andy Kornadek, ...	Slavonian, ..	Loader, ...	28	M.	1	1	Ellsworth No. 1, ..		Instantly killed by fall of slate at face of room while loading coal.
Feb.	18	Dan. Novack, ...	Lithuanian,	Loader, ...	49	S.	....	....	Hazel Kirk No. 1,		Instantly killed by fall of slate at face of room while taking slate down.
April	23	John Davis, ...	Russian, ...	Loader, ...	37	M.	1	5	Ellsworth No. 3, ..		Fatally injured by fall of slate at face of room while knocking coal.
		Gaetono DeRito, ...	Italian, ...	Loader, ...	39	M.	1	5	Ellsworth No. 1, ..		Instantly killed by fall of roof at face of room while taking roof down.
		Charles Alston, ...	American, ..	Miner, ...	40	M.	1	4	Cincinnati, ...	Washington, ...	Killed by an explosion of gas and dust.*
		George Alston, ...	American, ..	Loader, ...	54	M.	1	1			
		Oscar Alston, ...	American, ..	Loader, ...	17	S.	....	....			
		Robert Anderson, ...	English, ...	Company man	38	M.	1	2			
		Victor Aprimis, ...	Russian, ...	Loader, ...	28	M.	1	2			
		Peter Baccvieia, ...	Russian, ...	Loader, ...	31	M.	1	1			
		Walter Bennett, ...	American, ..	Loader, ...	38	M.	1	....			
		William Bennett, ...	American, ..	Loader, ...	39	M.	1	....			
		William Bery, ...	Russian, ...	Machine runner,	31	M.	1	3			
		Joseph Boonar, ...	Austrian, ..	Miner, ...	31	S.	....	....			
		Charles Bewan, ...	American, ..	Machine runner,	36	M.	1	....			
		Merle Brewer, ...	American, ..	Driver, ...	24	S.	....	....			
		Sem. Briggs, ...	American, ..	Company man	40	M.	1	2			
		Mike Buce, ...	Austrian, ..	Loader, ...	36	M.	1	6			
		James Busby, ...	Scotch, ...	Company man	32	M.	1	4			
		Eresle Buttafard, ...	Italian, ...	Loader, ...	34	M.	1	5			
		Thomas Carter, ...	American, ..	Company man	18	S.	....	....			
		Louis Clater, ...	American, ..	Miner, ...	49	M.	1	2			

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*An account of this accident appears in the Preliminary Part of the report.

April 23	John Clements, ...	American, ..	Miner, ...	40	S.	....	....	Cincinnati, ...	Washington, ...	Killed by an explosion of gas and dust.*
	Walter Conley, ...	American, ..	Driver, ...	24	M.	1	....			
	Joseph Dale, ...	Austrian, ..	Loader, ...	29	S.	....	....			
	George Didyrgis, ...	Russian, ...	Machine runner,	26	S.	....	....			
	Peter Diszmontas, ...	Russian, ...	Loader, ...	27	M.	1	3			
	Felix Donina, ...	Italian, ...	Loader, ...	29	S.	....	....			
	Thomas Donnelly, ...	English, ...	Loader, ...	34	M.	1	5			
	Matt Fabyan, ...	Austrian, ..	Loader, ...	37	M.	1	4			
	Archibald Ferguson, ..	Scotch, ...	Company man	55	M.	1	1			
	Frank Filipine, ...	Italian, ...	Loader, ...	28	M.	1	2			
	Frank Fitzhugh, ...	American, ..	Company man	23	S.	....	....			
	Thomas Ford, ...	American, ..	Loader, ...	47	M.	1	....			
	Joe. Galatutta, ...	Italian, ...	Loader, ...	31	M.	1	1			
	Robert Garner, ...	American, ..	Loader, ...	34	M.	1	....			
	Samuel Goggins, ...	American, ..	Miner, ...	39	M.	1	3			
	John Green, ...	American, ..	Driver, ...	22	S.	....	....			
	Henry Greegs, ...	American, ..	Trapper, ...	18	S.	....	....			
	Ignaez Geigalonic, ...	Russian, ...	Loader, ...	25	M.	1	1			
	Donati Guiseppi, ...	Italian, ...	Loader, ...	32	M.	1	3			
	Charles Hager, ...	American, ..	Loader, ...	45	M.	1	....			
	John Halezyan, ...	Austrian, ..	Loader, ...	40	M.	1	....			
	Peter Henratin, ...	Belgian, ...	Company man	29	M.	1	1			
	George Hereman, ...	American, ..	Company man	31	S.	....	....			
	Harry Hynis, ...	Scotch, ...	Loader, ...	36	S.	....	....			
	John Kesanovski, ...	Russian, ...	Loader, ...	22	S.	....	....			
	Joe. Kocki, ...	Russian, ...	Loader, ...	35	M.	1	2			
	Kostante Kopalka, ...	Russian, ...	Loader, ...	46	M.	1	1			
	Stana Kulpaumoski, ..	Russian, ...	Driver, ...	45	M.	1	....			
	Henry Leach, ...	American, ..	Driver, ...	20	S.	....	....			
	Emil Leroy, ...	French, ...	Company man	24	M.	1	4			
	Stephen Long, ...	American, ..	Machine runner,	31	S.	....	....			
	Emil Loonglais.	Belgian, ...	Company man	35	M.	1	3			
	Joe. Lerenz, ...	Russian, ...	Loader, ...	50	M.	1	5			
	Thomas Manwell, ...	Welsh, ...	Loader, ...	36	M.	1	....			
	Joe. Martusvi, ...	Russian, ...	Loader, ...	41	M.	1	2			
	Charles Marucha, ...	Italian, ...	Miner, ...	25	S.	....	....			
	George Melnik, ...	Austrian, ..	Loader, ...	42	M.	1	....			
	Mamizio Melotti, ...	Italian, ...	Loader, ...	34	S.	....	....			
	Charles Miller, ...	American, ..	Miner, ...	31	M.	1	6			
	Peter Marckoff, ...	Russian, ...	Miner, ...	30	S.	....	....			
	Tony Modijuski, ...	Russian, ...	Loader, ...	28	S.	....	....			
	John Morris, ...	American, ..	Driver, ...	36	S.	....	....			
	Peter Mercer, ...	English, ...	Driver, ...	21	S.	....	....			
	William McColligan, .	American, ..	Company man	....	M.	1	2			
	Charles McLanus, ...	Russian, ...	Loader, ...	40	M.	1	4			
	William McNeil, ...	Scotch, ...	Mine foreman	37	M.	1	2			
	Andy Pozinnetti, ...	Italian, ...	Loader, ...	29	M.	1	2			
	Peter Pwnicky, ...	Austrian, ..	Loader, ...	50	S.	....	....			
	Baptiste Polanienli, ..	Italian, ...	Loader, ...	34	M.	1	2			
	John Polowski, ...	Russian, ...	Miner, ...	26	S.	....	....			
	Thomas Reilley, ...	American, ..	Loader, ...	45	S.	....	....			

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*An account of this accident appears in the Preliminary Part of the report.

TABLE 4—Continued

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Number of widows	Number of orphans	Name of Mine	County	Nature and Cause of Accident in Brief
April 23	William Rutkovski, ..	Russian, ...	Loader, ...	27	S.	....	....	Cincinnati, ...	Washington,....	Killed by an explosion of gas and dust.*
	Henry J. Rush, ...	American, ..	Driver, ...	26	M.	1	1			
	William Sabutis, ...	Russian, ...	Machine runner,	35	S.	....	....			
	Selmo Spadinia, ...	Italian, ...	Loader, ...	21	S.	....	....			
	Andy Skarnyak, ...	Hungarian, .	Loader, ...	36	M.	1	2			
	David Stratton, ...	American, ..	Loader, ...	45	M.	1	....			
	John Lappe, ...	American, ..	Company man	46	M.	1	3			
	John Terebevo, ...	Russian, ...	Machine runner,	24	S.	....	....			
	Walter Turebso, ...	Russian, ...	Miner, ...	20	S.	....	....			
	Louis Varunek, ...	Austrian, ..	Loader, ...	33	M.	1	....			
	Louis Vernoseski, ...	Austrian, ..	Loader, ...	37	M.	1	10			
	George Veso, ...	American, ..	Loader, ...	16	S.	....	....			
	Ben. Venchenti, ...	Italian, ...	Miner, ...	....	....	....	....			
	Charles Walker, ...	American, ..	Loader, ...	47	S.	....	....			
	J. Wm. Warner, ...	Scotch, ...	Company man	55	S.	....	....			
	William Watson, ...	American, ..	Company man	21	S.	....	....			
	Joseph H. Weaver, ..	American, ..	Miner, ...	36	M.	1	3			
	Joseph Weldon, ...	American, ..	Assist. mine foreman,	29	S.	....	....			
	Walt. Wikison, ...	American, ..	Loader, ...	39	M.	1	1			
	George Zankas, ...	Russian, ...	Loader, ...	40	S.	....	....			
	Henry Wood, ...	American, ..	Driver, ...	19	S.	....	....			
	Simas Yonkuys, ...	Russian, ...	Loader, ...	29	S.	....	....			
	Giancomo Zannatti, ..	Italian, ...	Loader, ...	24	S.	....	....			
	Jacob Simon, ...	American, ..	Loader, ...	42	M.	1	....			
	Giacomo Ronchatte, ..	Italian, ...	Loader, ...	48	M.	1	5			
	William Warrick, ...	American, ..	Company man	45	M.	1	3			
	Howard Holmes,†	American, ..	Driver, ...	....	M.	1	....			
	Martin Oller,‡	....	Loader, ...	....	S.	....	....			

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*An account of this accident appears in the Preliminary Part of the report.
†Unidentified; supposed to be Holmes.
‡Unidentified; supposed to be Oller.

June	12	Andy Sofski, ...	Slavonian,..	Driver, ...	19	S.	....	....	Hazel Kirk No. 2,	Washington,	Killed by being run over by loaded mine car on cross-entry. He missed his footing while jumping onto front end of loaded trip.
	20	Joe. Junkus, ...	Lithuanian,	Machine runner,	24	S.	....	....	Catsburg, ...		Electrocuted while connecting the end of a mining machine cable near face of butt entry. Voltage at generating plant, 550.
Aug.	4	Andy Shemaw, ...	Slavonian,..	Miner, ...	30	M.	1	2	Ellsworth No. 2,..		Instantly killed by fall of slate from side of wall near face of pillar. It is supposed that he was removing a post from the side of the wall that was supporting the overhanging coal and slate.
Sept.	13	F. Reeds, ...	Italian, ...	Company man	25	S.	....	....	Ellsworth No. 1,..		Fatally injured by being caught between two railroad cars near tipple. Outside.
	26	Mike Cullick, ...	Italian, ...	Miner, ...	24	M.	1	4	Ellsworth No. 2,..		Fatally injured by being caught between the floor of mine and the floor of an electric locomotive near shaft bottom, while on his way out of the mine.
Oct.	6	John Williams, ...	Italian, ...	Driver, ...	33	M.	1	3	Star, ...		Fatally injured by being caught between loaded mine car and coal pillar at foot of cross-entry.
Nov.	4	Andy Drosdeck, ...	Slavonian,..	Scraper, ...	40	M.	1	4	Acme, ...		Fatally injured by fall of coal at face of room while scraping coal from a mining machine.
	19	Stanley Movgarama, .	Polish,......	Loader, ...	22	M.	1	3	Ellsworth No. 2,..		Instantly killed by fall of slate at face of room while knocking coal.

TABLE 5.—Non-Fatal Accidents Inside and Outside of Mines

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Name of Mine	County	Nature and Cause of Accident in Brief
Jan. 9	Adam Nulo,	Slavonian,	Scraper,	32	M.	Hazel Kirk No. 2,	Washington,	Foot cut off by being caught in bits of mining machine at face of room.
23	Martin Mox,	Russian,	Company man,	18	S.	Ellsworth No. 3,		Leg injured by being caught between the ends of "T" iron rails and the end of an electric locomotive on main passage-way.
Feb. 5	Andy Paskell,	Italian,	Driver,	20	S.	Hazel Kirk No. 2,		Leg broken by being caught between mine car and locomotive while riding along main entry.
7	John Moran,	Italian,	Company man,	33	M.	Hazel Kirk No. 2,		Internally injured. He was riding down the shaft when the rope broke a short distance from the bottom and the cage fell.
18	Joe. Cogula,	Italian,	Loader,	49	S.	Hazel Kirk No. 1,		Toe injured by fall of roof at face of room.
March 17	Adam Doras,	Slavonian,	Loader,	19	S.	Ellsworth No. 1,		Head and breast squeezed by being caught between mine cars in room neck.
27	Elio Deluca,	Italian,	Miner,	26	S.	Catsburg,		Leg broken by fall of roof at face of pillar.
May 3	James Sweeney,	American,	Miner,	63	M.	Star,		Hand injured by fall of slate at face of room.
7	Watson Barton,	American,	Company man,	42	M.	Star,		Back injured by fall of roof at face of room.
10	Drab Gabor,	Slavonian,	Miner,	44	M.	Dunkirk,		Thigh fractured by fall of slate at face of pillar.
18	Frank Pendan,	Slavonian,	Driver,	23	S.	Hazel Kirk No. 2,		Internally injured by being caught between mine cars on main passage-way.
28	S. L. Brooks,	American,	Miner,	40	S.	Star,		Leg broken by fall of slate at face of room.
June 12	Guiseppi Cinchetti,	Italian,	Loader,	27	S.	Star,		Leg broken by being caught between mine car and coal pillar on main passage-way.
14	Charles Koorta,	Slavonian,	Loader,	28	M.	Hazel Kirk No. 1,		Injured by fall of slate at face of room.
July 2	George Wright,	English,	Engineer,	40	M.	Shoenberger,		Injured by being caught in machinery. Outside.
8	Joe. Dragon,	Russian,	Loader,	42	M.	Dunkirk,		Leg broken by fall of slate at face of room.

July	9	Joe. Salon, ...	Slavonian, ..	Miner, ...	28	M.	Ellsworth No. 1, ...	Washington,	Leg broken by being struck by a piece of slate in pillar workings.
	21	Raphael Dioulis, ...	Italian, ...	Company man, ...	32	M.	Ellsworth No. 3, ...		Foot injured by fall of slate on cross-entry.
		James McLaughlin, ..	American, ..	Driver, ...	26	S.	Star, ...		Rib and collar bone broken by being caught between mine car and coal pillar on cross-entry.
	31	Torquarto Fusari, ...	Italian, ...	Miner, ...	31	M.	Donora, ...		Fingers crushed while undermining coal at face of pillar.
Aug.	5	Brown Rodgers, ...	Polish, ...	Driver, ...	23	S.	Ellsworth No. 3, ...		Ankle injured by being caught between two mine cars on cross-entry.
	7	Arneado Tonerine, ...	Italian, ...	Scraper, ...	33	M.	Star, ...		Leg broken by fall of roof at face of room.
Sept.	16	William Dzben, ...	Slavonian, ..	Machine runner, .	25	M.	Shoenberger, ...		Toe crushed by being run over by mining machine truck on cross entry.
	17	John Durnbough, ...	English, ...	Company man, ...	28	M.	Shoenberger, ...		Fingers crushed by being caught in electric pump.
	22	Frank Petosky, ...	Polish, ...	Loader, ...	33	M.	Ellsworth No. 1, ...		Skull fractured by fall of roof at face of room.
	29	James McConnell, ...	American, ..	Machine runner, .	47	M.	Charleroi, ...		Three fingers cut off by being caught in chain of mining machine at face of room.
	30	Thomas Rankin, ...	American, ..	Company man, ..	37	M.	Charleroi, ...		Three fingers cut off by being caught in gear of electric pump.
Oct.	4	Frank Pozer, ...	Granish, ...	Company man, ...	16	S.	Ellsworth No. 3, ...		Ankle injured by being caught between two locomotives on main passage-way.
		Paul Bowdet, ...	French, ...	Loader, ...	28	M.	Charleroi, ...		End of thumb cut off by a piece of falling slate at face of pillar.
	6	Steve. Yokealish, ...	Austrian, ..	Company man, ...	17	S.	Dunkirk, ...		Leg cut off by mine car on slate dump. He fell in front of car while attempting to put a sprag in the wheel. Outside.
	7	Martin Matuse, ...	Slavonian, ..	Driver, ...	22	S.	Hazel Kirk No. 2, ...		Body injured by being caught between mine car and coal pillar on cross entry.
	10	Mike Luponiff, ...	Russian, ...	Machine runner, .	39	M.	Ellsworth No. 1, ...		Leg fractured by a mining machine while flitting it along cross entry.
	14	Mike Kosula, ...	Slavonian, ..	Loader, ...	28	S.	Hazel Kirk No. 2, ...		Leg badly bruised by fall of slate at face of room.
Nov.	7	Adam Preko, ...	Polish, ...	Loader, ...	38	M.	Ellsworth No. 1, ...		Compound fracture of leg and internally injured by fall of roof at face of room.
	12	Joe. Pallagrime, ...	Italian, ...	Loader, ...	47	M.	Shoenberger, ...		Thigh broken by fall of roof at face of room.
	13	Joe. Graty, ...	Lithuanian,	Loader, ...	29	S.	Charleroi, ...		Compound fracture of ankle. Caught between mine cars on cross entry.
	19	George Veterneck, ...	Slavonian, ..	Loader, ...	38	M.	Ellsworth No. 3, ...		Foot seriously injured by fall of slate at face of room.
		Steve. Bushkit, ...	Horwat, ...	Company man, ...	28	M.	Ellsworth No. 3, ...		Knee injured by a piece of falling rock on main entry.
	26	Richard Fusari, ...	Italian, ...	Loader, ...	27	S.	Donora, ...		Arm broken by fall of slate at face of room.
Dec.	16	Peter Risher, ...	German, ...	Company man, ...	57	M.	Catsburg, ...		Head and arm injured by being struck by flying coal from a shot at face of room.

CONDITION OF MINES

ELLSWORTH COLLIERIES COMPANY

Ellsworth No. 1.—Ventilation and drainage excellent.
Ellsworth No. 2.—Ventilation good. Drainage excellent.
Ellsworth Nos. 3 and 4.—Ventilation and drainage excellent.

PITTSBURGH-WESTMORELAND COAL COMPANY

Acme Nos. 1 and 2.—The ventilation in volume is up to the requirements of the law and the mine is in a healthful condition throughout. In some parts of the mine the roads are neat and clean, and in other parts they are wet and muddy. The coal seam at this point is very flat, making drainage difficult.

Dunkirk.—Ventilation is up to the requirements of the law, except in one split. The mine is in good sanitary condition throughout. Drainage excellent.

Hazel Kirk Nos. 1 and 3.—Ventilation very good. Drainage good, except at a few points in various places.

Hazel Kirk No. 2.—Ventilation generally is not satisfactory, but the mine is in a healthy condition and free from accumulations of gas in the operating portions. Drainage good, except at a few points.

Shoenberger.—Ventilation excellent. Drainage good, except at a few minor points.

MONONGAHELA RIVER CONSOLIDATED COAL AND COKE COMPANY

Black Diamond.—Ventilation good, except in a small portion of the mine where it is only fair. Drainage very good.

Catsburg.—Ventilation good in some parts, and only fair in other parts. Drainage good, except on a small portion of the dilly road.

Cincinnati.—Ventilation and drainage good.

STAR COAL COMPANY

Star.—Ventilation and drainage good.

OLLETT BROTHERS COAL COMPANY

Donora.—Ventilation good. Drainage good, except at a few points.

CARNEGIE COAL COMPANY

Charleroi.—Not inspected during the year. The mine was assigned to the first district the latter part of September and closed down the early part of December.

IMPROVEMENTS

ELLSWORTH COLLIERIES COMPANY

Ellsworth No. 1.—Installed a rope drive at No. 1 fan, actuated by a 400 horse-power alternating current 2200 volt Allis-Chalmers motor, displacing a direct connected 24 by 30 inch steam engine, with necessary foundations, etc.; one 750 K. W. 2200 volt alternating

Turbo mixed pressure generator and spray cooling pond, this unit to furnish power to all the sub-stations of the Ellsworth Collieries Company; one 6 by 8 inch Dean triplex pump, connected to a 15 horse-power motor; one 5 by 6 inch pump of the Aldrich type, geared to a 7½ horse-power motor; three Pulling 6 by 8 inch pumps, each geared to a 5 horse-power motor; a Morgan-Gardner, vertical type 7½ horse-power crab motor on each of three 6½-ton haulage locomotives; one Ingersoll portable air compressor for use in machine shop. Enclosed 17 mining machine motors in enclosures, supposed to be explosion-proof, made of non-inflammable material. Erected 125 feet of 9-inch brick wall, with "I" beams, weighing 50 pound per foot; placed thereon for roof support along a portion of the main haul way; also built thirty-seven 9-inch brick stoppings and four pump rooms of brick and cement with corrugated iron roof and iron doors. Made a clearance of 2½ feet between car and wall for a distance of 15,000 feet in entries driven prior to the passage of the Act of June 9, 1911. Installed telephones in each section of the mine with all other necessary equipment. Changes were made in all wires used in the lighting system, and in all wiring, switches, and fuses used about electric driven pumps, so as to have them conform to the requirements of the new Mine Code. Electric wires were protected by placing boards along the wires at all points where it was thought workmen would have occasion to pass beneath them or otherwise come in contact therewith.

Ellsworth No. 2.—Installed Yough pump, size 12 by 7 by 12 inches, at midway fan-house, for pumping water from reservoir to water tank for coke ovens; a Morgan-Gardner vertical crab type motor on each of seven 5½-ton Jeffrey locomotives; enclosed 17 mining machine motors in enclosures, supposed to be explosion proof, made of non-inflammable material; also installed one Ingersoll portable air compressor for use in machine shop. Built corrugated iron lumber room with necessary foundation, size 24 by 40 feet; corrugated iron store house, size 30 by 50 feet, for storing spare parts of machinery; brick and cement pump room with sheet iron roof; 2 brick and cement overcasts; forty-six 9-inch brick stoppings; and 700 feet of 9-inch brick wall, with heavy concrete base, supporting "I" beam for roof protection on the main east haulage-way. Made a clearance of 2½ feet between car and wall for a distance of 16,000 feet on entries driven prior to the passage of the Act of June 9, 1911. Changed electric lighting system to comply with requirements of the Mine Law; also the wiring and switch arrangements at electric driven pumps. Placed telephones at various points underground with necessary wiring and accessories. Trolley and transmission lines were protected at all points where it was presumed workmen would be required to pass under them or otherwise come in contact therewith.

Ellsworth Nos. 3 and 4.—Built eight 6-room houses, provided with electric lights and baths; ten 4-room double block houses; 4,500 feet of larry track connecting No. 3 and No. 4 coke ovens; 7 beehive ovens; a corrugated steel car shop, size 30 by 52 feet, in which to make repairs; 50 new mine cars; and 80 brick stoppings. Purchased 9-ton larry and put it into service. Installed 300 K. W. motor generator in No. 4 power house, transforming alternating current at 2200 volts to direct current for mine service at 250 volts. Constructed a high tension line, transmitting 2200 volts from No. 2 power plant at Ellsworth to a motor generator set in No. 4 power plant; also a 10 pair insulated telephone line on the same poles as transmission lines, connecting the Ellsworth and Cokeburg Boroughs. Equipped No. 4 tipple with screen, chutes, and cross-over dump, putting same into service towards the latter part of the year. Installed six 6½-ton gathering locomotives. Equipped ten 6½-ton gathering locomotives each with vertical crab, dispensing with an equal number of horizontal crabs. Sunk a 12-foot diameter concrete-lined air shaft 400 feet, equipping it with steel ladder provided with rest platforms at intervals of 25 feet, the entire ladder being enclosed in a steel protecting cage. Protected electric wires at room necks and butt entry crossings and at other points where workmen might have occasion to pass beneath them. Changed 13,000 feet of electric feed wire to the trolley side of the road. Slabbed all entries where necessary to obtain a clearance of 2½ feet on the brake side of car. Supported roof for a distance of 300 feet on traveling-way on east side of mine with brick walls and steel "I" beams; also 100 feet of shaft bottom at No. 4 mine was supported in similar fashion. Side tracks on No. 12 west entry graded for a distance of 400 feet; also second east main entry graded for a distance of 1,500 feet. Placed telephones, with other necessary appliances, in various parts of the mine.

A laboratory is maintained by the Company at Ellsworth for the analysis of mine air. This laboratory is equipped with a gas burette, designed by Mr. G. A. Burrell of the Bureau of Mines, Pittsburgh, and capable of detecting amounts of methane as low as one-hundredth of one per cent.

A close check is kept on the percentage of methane in the different air currents of the several mines of the company. This enables the mine officers to know the exact condition, as to gas, in each split of air, and gives them reliable information for solving the various ventilating problems as they occur.

FIRST AID AND RESCUE APPLIANCES

Six, type 1911, Draeger selfcontained oxygen helmets, 2 pulmotors, 4 respirators, full charging equipment, testing equipment, potash cartridges, oxygen tank, and 2 ambulances, one at Ellsworth and the other at Cokeburg, have been provided. Three teams, composed of six men each, have been trained in the use of mine rescue equipment.

Each section of the mines of this company contain individual equipment comprising a rubberized case which contains one army stretcher, one rubber blanket, one woolen blanket and splints. Each section also is equipped with first aid box which contains bandages, gauze, tournaquets, etc.

A first aid instruction room has been provided with chairs, blackboards, charts, splints, etc., and regular instruction has been given during the last year to over 200 men. As a result of such instruction, 42 officials were given American red cross certificates during the past year.

The second annual safety demonstration was held at Ellsworth on October 17, which was participated in by 30 teams, comprising 180 men. Three teams, 2 in first aid and one in mine rescue work, took part in the contest of the American Mine Safety Demonstration, at Arsenal Park, Pittsburgh, Pa.

One new 4-room brick school building has been constructed at Cokeburg, and put in service September 1, 1913.

The third floor of the Ellsworth school building was altered, so as to provide for additional school facilities, including high school instruction, same being ready for use January 1, 1914.

Domestic science, under a competent instructor, has been provided at Ellsworth and Cokeburg, for all girls above the 4th grade in school.

Two sessions of kindergarten are held each day at Ellsworth and Cokeburg; the morning session being for children between the ages of 5 and 6 years, and the afternoon session for children between the ages of 4 and 5 years. One instructor and an assistant instructor are stationed at each place.

Night school systems have been established as follows:

Mining classes are provided for those who desire to qualify for Mine foreman and Fire Boss certificates. These classes meet two nights each week, at Ellsworth and Cokeburg.

Class in English for foreign speaking employes is held two nights each week.

Class in elementary branches for boys and men employed during the day meets two nights each week.

Instructions in domestic science are given one night each week to girls and women who are employed through the day at house work, etc.

Two hospitals, one at Ellsworth and the other at Cokeburg, costing, with equipment, approximately $7,500.00 each, have been constructed; the hospital at Cokeburg has been in operation all through the year 1913. The Ellsworth hospital will be placed in operation January 1, 1914.

Two doctors have been employed at Ellsworth and two at Cokeburg.

Two picture shows, dairy, and hotel, were operated throughout the year for the benefit of employes, and, it might be added, at a considerable pecuniary loss to the company.

Garden plots, size 100 by 100 feet, were leased at a nominal rental of $3.00 per plot per season, to employes desiring same. These plots were fertilized, ploughed and harrowed, all ready for planting.

A one hundred and ten volt electric lighting system is being installed in all the workmen's houses at Ellsworth.

Ash and board sidewalks have been built throughout Ellsworth and Cokeburg borough. Some improvement has also been made to the main roads at Cokeburg.

All new closet vaults built during 1913 were constructed of cement.

Three hundred lots, size 70 by 150 feet, have been staked out at Ellsworth. It is intended to sell these lots to employees on a monthly payment plan; also, if desirable, houses will be erected thereon and sold to employes under like conditions.

The officials club and athletic club were in successful operation throughout the year.

Oriental Sycamore and Catalpa trees have been planted throughout the town.

Additional drinking water facilities have been provided by drilling 5 wells at Ellsworth and 3 at Cokeburg.

Two playgrounds, one at Ellsworth and the other at Cokeburg, were in operation during the summer season, under competent directors, with an average attendance of over 75 at each place.

MONONGAHELA RIVER CONSOLIDATED COAL AND COKE COMPANY

Black Diamond—Installed 1140 feet of 5-inch discharge lines; 200 feet of 6-inch suction line; 7 gas-proof mining machines; 169 Wolf safety lamps; one boiler for storage of oil; 2200 feet of 40 pound "T" iron rail and 700 feet of 30 pound "T" iron rail; 2900 feet of trolley line; one 5 by 6 inch pump; and one 25 horse-power motor. Excavated 35 shelter holes and 1,000 feet of ditch. Built 35 brick stoppings, and 300 feet of brick wall for roof support on new motor road; also built one new brick pump room. Slabbed 2,000 feet of motor road to secure a clearance of 2½ feet between car and wall.

Catsburg—Removed 7,105 cars of dirt from airways. Graded 2,000 feet of entry. Made a clearance of 2½ feet from wall to side of car for distance of 3,050 feet on entries driven prior to the passage of the Act of June 9, 1911. Laid 4,900 feet of track. Cut 60 shelter holes. Installed 125 Wolf safety lamps, 3 pumps, 4 motors, 1 Jeffrey short-wall mining machine, 1 telephone and line. Built one brick pump room, one first aid room, and one supply and work shop for machine supplies. Shot down 800 feet of roof, and took down 800 feet of bad roof; also made new pump sump. Protected 3,500 feet of trolley wire, and replaced 2,000 feet of bare wire with insulated wire along dilly road; also replaced 1,000 feet of 2-0 trolley wire with 4-0, equipping same with 400 ampere switches; also rebuilt one 35 horse-power General Electric motor. Sunk new concrete-lined air shaft at face of workings, equipping it with a convenient stairway, electric sub-station, ventilating fan of the Jeffrey type, and hoisting machinery and cages; all of which is about ready to be put into service.

Cincinnati—Built 175 brick stoppings, 3 brick pump rooms, and 35 doors, setting them in brick. Rebuilt mine foreman's office and first aid room, and repaired 12 masonry overcasts. Put bore hole down from surface to main intake airway for electric wires, the bore hole being 220 feet in depth. Cleaned up 800 feet of traveling-way and all haulage-ways, necessitating the removal and sending to the surface of 4,400 cars of dirt, and making it possible, when the traveling-way is completed, to reach the surface without coming in contact with the main haulage-ways, a protection not heretofore provided at this mine. Made 51 shelter-holes. Laid 1,110 feet of 40 pound "T" iron rail. Protected 6,060 feet of electric wire, consisting of machine and trolley line. Installed 6 mining machines with gas-proof motors, two 5 by 5 inch pumps, one electric hoist, and 200 Hirsch electric lamps. Built new mine foreman's office outside, lamp room, hospital, repair shop, supply house, and sand house and car repair shop.

STAR COAL COMPANY

Star—Built 6 new overcasts of brick and iron, and installed one 6-ton Jeffrey electric locomotive.

OLLETT BROTHERS COAL COMPANY

Donora—Installed one 7½ horse-power Westinghouse motor, connected to a 2½ by 2 inch centrifugal pump; also one open type Sullivan short-wall chain mining machine. Built one pump house of tile, with steel roof.

CARNEGIE COAL COMPANY

Charleroi—Erected steel tipple and trestle 600 feet long, containing 650 tons of steel. All tipple floors are of concrete. Doubled the capacity of tipple sidings, making the sidings capable of accommodating 70 loaded and 70 empty railroad cars. Laid main motor road with 85 pound "T" iron rail for a distance of 5,000 feet, abandoning the old mine entrance and incline; also laid 12,600 feet of 40 pound "T" iron rail for motor road. Drove rock tunnel 820 feet, entering the hill 45 feet below the coal, this being necessary to secure a favorable grade for locomotives to reach the tipple. Discarded old mine cars. Purchased 600 new cars having a capacity of 3½ tons each. Installed 2 30-ton units, each consisting of two 15-ton electric locomotives of the Baldwin-Westinghouse. bar steel frame type; ten 6-ton traction reel gathering locomotives of the same type; two 150-gallon piston gathering pumps; 9 tons of grooved trolley wire; Sirocco ventilating fan, 10 by 5 feet, belt driven by a 16 by 16 inch Ball single engine; 10 Sullivan continuous cutting machines with gas-proof motors; also equipped 12 Jeffrey breast machines with gas-proof motors, and 12 pumps with 500 volt motors. Changed over to 500 volts and equipped with traction reels, two 6-ton locomotives that were used by the former owners of the property.

PROSECUTIONS FOR VIOLATION OF THE MINING LAWS

November 7, Frank Schragel, miner, Marianna mines, Pittsburgh-Buffalo Coal Company. Charge: Taking matches into safety lamp mine. January 27, 1913, plea of "guilty." Sentenced to pay costs and a fine of $25.00 and to be imprisoned in the County Jail for thirty days.

January 11, Peter Kukel, miner, Rachel mine, Pittsburgh-Buffalo Coal Company. Charge: Disobedience to orders to set posts. January 20, plea of "guilty." Sentenced to pay costs and a fine of $50.00 and to be imprisoned in the County Jail for sixty days.

January 11, Oscar Swanson, miner, Rachel mine, Pittsburgh-Buffalo Coal Company. Charge: Disobedience to order to take down dangerous slate. January 27, plea of "guilty." Sentenced to pay costs and a fine of $25.00 and to be imprisoned in the County Jail for thirty days.

January 23, Stanley Bartinsky, miner, Marianna mine, Pittsburgh-Buffalo Coal Company. Charge: Taking smokers' articles into safety lamp mine. January 27, plea of "guilty." Sentenced to pay costs and a fine of $25.00, or, in default, to be imprisoned in the County Jail for sixty days.

February 4, Nick Bellas, miner, Rachel shaft, Marianna mine, Pittsburgh-Buffalo Coal Company. Charge: Taking pipe and smokers' articles into safety lamp mine. February 24, plea of "guilty." Sentenced to pay costs and a fine of $25.00, or, in default, to be imprisoned in the County Jail for sixty days.

February 5, Joe Hozuda, miner, Dunkirk mine, Pittsburgh-Westmoreland Coal Company. Charge: Using other than a signed way for traveling. February 7, plea of "guilty." Sentenced to pay costs and a fine of $25.00, or, in default, to be imprisoned in the County Jail for sixty days.

February 6, Mike Yashonack, miner, Black Diamond mine, Monongahela River Consolidated Coal and Coke Company. Charge: Tamping shot with coal dust in gaseous mine. February 17, plea of "guilty." Sentenced to pay costs and a fine of $25.00, or, in default, to be imprisoned in the County Jail for sixty days.

June 25, S. Caspro, loader, Ellsworth No. 1 mine, Ellsworth Collieries Company. Charge: Taking smokers' articles into safety lamp mine. June 30, plea of "guilty." Sentenced to pay costs and a fine of $25.00, or, in default, to be imprisoned in the County Jail for sixty days.

July 30, Mike Barto, miner and loader, Dunkirk mine, Dunkirk Gas Coal Company. Charge: Disobedience to order to set post August 18, plea of "guilty." Sentenced to pay costs and a fine of $25.00, or, in default, to be imprisoned in the County Jail for sixty days.

August 9, Charles Coder and John Logoita, miners and loaders, Hazel Kirk No. 3 mine, Pittsburgh-Westmoreland Coal Company. Charge: Disobedience to order to take down draw slate. September 15, plea of "guilty." Sentenced to pay costs and a fine of $25.00, or, in default, to be imprisoned in the County Jail for sixty days.

October 20, G. Kalich and Charles Ballow, loaders, Dunkirk mine, Pittsburgh-Westmoreland Coal Company. Charge: Using coal dust for tamping in gaseous mine. November 3, plea of "guilty." Sentenced to pay costs, and a fine of $25.00.

November 3, Andy Graylock, wireman helper, Cincinnati mine, Pittsburgh Coal Company. Charge: Wilfully breaking safety lamp. November 10, plea of "guilty." Sentenced to pay costs and a fine of $10.00, or, in default, to be imprisoned in the County Jail for thirty days.

MINE FOREMEN'S AND FIRE BOSSES' EXAMINATIONS

The annual examination of applicants for certificates of qualification as mine foremen, assistant mine foremen and fire bosses was held in the Eagle's Building, Monongahela, April 6, 7 and 8. The Board of Examiners was composed of Alexander McCanch, Inspector; C. W. Hall, Superintendent; and Hugh McLaughlin, Miner.

There were 28 applicants for certificates of qualification as mine foremen and assistant mine foremen, and 31 applicants for certificates of qualification as fire bosses. The following persons passed a satisfactory examination and were granted certificates:

MINE FOREMEN

First Grade

Charles Henry Davis, Patrick Joseph Cullen, Archibald William

Harris, Fred Shilling, Ellsworth; Joseph Maize, Hugh Blair Stamper, Monongahela; Thomas Jenkins Jones, Courtney; William Henry Parsons, Marianna.

Second Grade

Thomas Carberry, Ivanhoe; William Franklin Shaw, Monongahela; John Edward North, Ellsworth.

ASSISTANT MINE FOREMEN

George Holdsworth, Cornelius Francis Rafter, Ivanhoe; David Roach, Cokeburg; Thomas James Robertson, Benjamin France, Edward Nelson, James Degnan, Otto Goreck, Monongahela; John Edward North, John Dixon, Ellsworth; William Rae, Finleyville; William Watson, Bentleyville.

FIRE BOSSES

Robert Murray, John George Waugh, Aime Boyer, Arthur Tunnecliffe, Joseph Waugh, Bentleyville; Mack H. Henderson, Cokeburg; John Heaney, Van Voorhis; John Allan Duncan, Ivanhoe: Edwin Robert North, Atwood Hinebauch, Frederick K. Gullick, Joseph Eugene Homme, Dennis Sullivan, Ellsworth; William Henry Igoe, Herbert King, William Henry Daugherty, Fred Eastwood, David Clendenen, Monongahela; Frank Comer, Andy Zanardelli, Charles Schollaert, William Hall Nelson, Alexander Clendenen, Richard Robbins, Adam Campbell, Hazzard; William Adams, Marianna; James Sweeney, Courtney.

SECOND DISTRICT

WESTMORELAND COUNTY

Latrobe, Pa., February 20, 1914.

Hon. James E. Roderick, Chief of Department of Mines:

Sir: I have the honor to transmit herewith my report of the Second Bituminous District for the year ending December 31, 1913, in compliance with the provisions of the Bituminous Mine Law.

Respectfully submitted,

C. B. ROSS, Inspector.

SUMMARY OF STATISTICS

Number of mines,	57
Number of mines in operation,	56
Number of tons of coal shipped to market,	4,506,306
Number of tons used at mines for steam and heat,	242,387
Number of tons sold to local trade and used by employes,	75,170
Number of tons used in the manufacture of coke,	4,213,606
Number of tons of coal produced,	9,037,469
Number of tons of coke produced,	2,716,148
Number of coke ovens,	5,917
Number of coke ovens in operation,	4,180
Number of tons of coal produced by pick mining,	7,323,189
Number of tons produced by compressed air machines,	487,913
Number of tons produced by electrical machines,	1,226,367
Number of persons employed inside of mines,	5,809
Number of persons employed outside, including coke workers,	2,572
Number of persons employed at manufacture of coke,	1,437
Number of fatal accidents inside of mines,	33
Number of fatal accidents outside,	4
Number of non-fatal accidents inside of mines,	40
Number of non-fatal accidents outside,	1
Number of tons of coal produced per fatal accident inside,	273,863
Number of tons produced per fatal accident outside,	2,259,367
Number of tons produced per fatal accident inside and outside,	244,256
Number of persons employed per fatal accident inside,	176
Number of persons employed per fatal accident outside,	643
Number of persons employed per fatal accident inside and outside,	227
Number of persons employed per non-fatal accident inside,	145
Number of persons employed per non-fatal accident outside,	2,572
Number of persons employed per non-fatal accident inside and outside,	204
Number of wives made widows,	24
Number of children made orphans,	63
Number of steam locomotives used inside of mines,	....
Number of steam locomotives used outside,	13
Number of compressed air locomotives used inside,	12
Number of compressed air locomotives used outside,	....
Number of electric motors used inside,	35
Number of electric motors used outside,	2
Number of gasoline locomotives used inside,	7
Number of fans in use,	51
Number of furnaces in use,	3
Number of gaseous mines in operation,	7
Number of non-gaseous mines in operation,	49
Number of new mines opened,	4
Number of old mines abandoned,	3

TABLE A

PRODUCTION OF COAL

Names of Operators	Tons
Jamison Coal and Coke Company,	2,517,940
Latrobe-Connellsville Coal and Coke Company,	1,066,617
Hostetter-Connellsville Coke Company,	757,353
Keystone Coal and Coke Company,	715,552
H. C. Frick Coke Company,	596,194
New Alexandria Coke Company,	549,387
Atlantic Crushed Coke Company,	351,561
Shenango Furnace Company,	291,808
Latrobe Coal Company,	277,074
Donohoe Coke Company,	271,826
Loyal Hanna Coal and Coke Company,	237,911
Westmoreland-Connellsville Coal and Coke Company,	214,444
Greensburg-Connellsville Coal and Coke Company,	209,248
Mount Pleasant Coke Company,	181,666
Ligonier Coal Company,	156,884
Ligonier Diamond Coal and Coke Company,	89,816
Saint Clair Coal Company,	83,210
Ramsey Coal Company, Incorporated,	67,897
Unity-Connellsville Coke Company,	67,551
Unity Coal Company,	56,678
Bessemer Coke Company,	54,226
E. A. Humphries Coal and Coke Company,	45,642
South Ligonier Coal Company,	42,931
Whyel Coke Company,	42,141
Fort Ligonier Coal Company,	25,390
Marietta-Connellsville Coke Company,	21,967
South Fayette Coke Company,	19,470
Dornon Coal Company,	17,416
Westmore Coal and Coke Company,	5,284
Connellsville Coke and Fuel Company,	2,385
Total,	9,037,469

Production by Counties

Westmoreland,	9,037,469

TABLE B.—Fatal and non-fatal accidents inside and outside of mines; number of tons of coal produced per accident; number of persons employed; number employed per accident

Names of Operators	Fatal Accidents			Non-Fatal Accidents			Tons of coal produced per fatal accident inside	Tons of coal produced per non-fatal accident inside	Number of employes inside	Number of employes outside	Total number of employes	Number of employes inside per fatal accident	Number of employes outside per fatal accident	Number of employes inside per non-fatal accident	Number of employes outside per non-fatal accident
	Inside	Outside	Total	Inside	Outside	Total									
Jamison Coal and Coke Co.,	15	......	15	18	......	18	167,863	139,886	1,385	789	2,174	92	....	77	....
Latrobe-Connellsville Coal and Coke Co.,	5	1	6	3	......	3	213,323	355,539	948	268	1,216	190	268	316	....
Keystone Coal and Coke Co.,	2	......	2	2	1	3	357,776	357,776	376	186	562	188	....	188	186
H. C. Frick Coke Co.,	4	2	6	1	......	1	149,048	596,194	445	239	684	111	120	445	....
New Alexandria Coke Co.,	1	......	1	1	......	1	549,387	549,387	248	35	283	248	....	248	....
Atlantic Crushed Coke Co.,	2	......	2	1	......	1	175,780	351,561	206	69	275	103	....	206	....
Latrobe Coal Co.,	......	1	1	1	......	1	....	277,074	206	87	293	....	87	206	....
Donohoe Coke Co.,	......	......	......	5	......	5	....	54,365	116	102	218	....	....	23	....
Loyal Hanna Coal and Coke Co.,	......	......	......	2	......	2	....	118,955	186	50	236	....	....	93	....
Greensburg-Connellsville Coal and Coke Co.,	2	......	2	2	......	2	104,624	104,624	125	67	192	62	....	62	....
Saint Clair Coal Co.,	......	......	......	1	......	1	....	83,210	51	8	59	....	....	51	....
Unity-Connellsville Coke Co.,	1	......	1	......	......	......	67,551	....	52	43	95	52	....	....	....
Unity Coal Co.,	......	......	......	3	......	3	....	18,893	69	16	85	....	....	23	....
Dornon Coal Co.,	1	......	1	......	......	......	17,416	....	20	4	24	20	....	....	....
Miscellaneous Companies,	......	......	......	......	......	......	....	....	1,376	609	1,985	....	....	....	....
Totals and averages for district,	33	4	37	40	1	41	273,863	225,937	5,809	2,572	8,381	176	643	145	2,572

TABLE C.—Classification of Fatal Accidents Inside and Outside of Mines

	Months													
	January	February	March	April	May	June	July	August	September	October	November	December	Totals	Percentages
Causes of Accidents Inside														
Falls of coal,	....	1	....	....	1	....	....	....	....	....	....	....	2	6.06
Falls of slate,	....	3	2	2	1	1	2	2	1	1	2	1	18	54.55
Falls of roof,	1	....	2	....	....	1	....	2	1	....	....	....	7	21.21
Mine cars,	....	....	....	....	1	....	....	1	1	2	....	....	5	15.15
Struck by post,	....	....	....	....	....	....	....	....	....	....	....	1	1	3.03
Totals,	1	4	4	2	3	2	2	5	3	3	2	2	33	100.00
Causes of Accidents Outside														
Cars,	....	....	1	....	....	....	....	....	....	....	....	....	1	25.00
By falling,	....	....	1	....	....	....	....	....	....	....	....	....	1	25.00
Explosion of permissible explosives,	....	....	....	....	....	....	....	1	....	....	....	....	1	25.00
Electricity,	....	....	....	....	....	....	1	....	....	....	....	....	1	25.00
Totals,	....	....	2	....	....	....	1	1	....	....	....	....	4	100.00
Grand totals inside and outside,	1	4	6	2	3	2	3	6	3	3	2	2	37	......

TABLE D.—Classification of Non-Fatal Accidents Inside and Outside of Mines

	Months													
	January	February	March	April	May	June	July	August	September	October	November	December	Totals	Percentages
Causes of Accidents Inside														
Falls of coal,	....	....	....	....	....	1	....	....	1	1	1	....	4	10.00
Falls of slate,	2	....	2	....	1	1	1	6	1	1	1	4	20	50.00
Mine cars,	1	2	....	1	1	....	1	....	....	....	1	2	9	22.50
Blasts, premature and otherwise,	1	....	1	....	....	1	....	....	....	....	....	....	3	7.50
Machinery,	....	....	....	....	....	....	1	1	....	....	....	1	3	7.50
Struck by rail,	....	....	1	....	....	....	....	....	....	....	....	....	1	2.50
Totals,	4	2	4	1	2	3	3	7	2	2	3	7	40	100.00
Causes of Accidents Outside														
Cars,	....	....	....	....	....	....	1	....	....	....	....	....	1	100.00
Totals,	....	....	....	....	....	....	1	....	....	....	....	....	1	100.00
Grand totals inside outside,	4	2	4	1	2	3	4	7	2	2	3	7	41	......

TABLE E.—Occupations of Persons Killed or Fatally Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
Inside													
Road bosses,	....	....	....	....	....	....	....	....	1	....	....	....	1
Miners,	1	4	4	1	1	1	2	2	2	....	2	2	22
Machine loaders,	....	....	....	....	1	....	....	1	....	1	....	....	3
Drivers and runners,	....	....	....	1	1	1	....	....	....	1	....	....	4
Company men,	....	....	....	....	....	....	....	1	....	....	....	....	1
Motormen,	....	....	....	....	....	....	....	1	....	1	....	....	2
Totals,	1	4	4	2	3	2	2	5	3	3	2	2	33
Outside													
Miners,	....	....	....	....	....	....	....	1	....	....	....	....	1
Engineers and firemen,	....	....	1	....	....	....	....	....	....	....	....	....	1
Coke employes,	....	....	1	....	....	....	1	....	....	....	....	....	2
Totals,	....	....	2	....	....	....	1	1	....	....	....	....	4
Grand totals inside and outside,	1	4	6	2	3	2	3	6	3	3	2	2	37

TABLE F.—Occupations of Persons Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
Inside													
Miners,	3	1	3	....	1	3	1	5	2	1	2	5	27
Machine runners,	....	....	....	....	....	....	1	1	....	....	....	1	3
Machine loaders,	....	....	....	....	....	....	1	....	....	....	....	....	1
Drivers and runners,	1	1	....	1	1	....	....	....	....	1	1	1	7
Company men,	....	....	1	....	....	....	....	1	....	....	....	....	2
Totals,	4	2	4	1	2	3	3	7	2	2	3	7	40
Outside													
Coke employes,	....	....	....	....	....	....	1	....	....	....	....	....	1
Totals,	....	....	....	....	....	....	1	....	....	....	....	....	1
Grand totals inside and outside,	4	2	4	1	2	3	4	7	2	2	3	7	41

TABLE G.—Nationality of Persons Killed or Fatally Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
American,	....	....	1	....	....	....	....	1	1	1	....	1	5
English,	....	....	1	....	....	....	....	....	....	....	....	....	1
Scotch,	....	....	....	....	....	....	....	1	....	....	....	....	1
Polish,	....	1	1	1	1	....	2	1	....	....	....	....	7
Hungarian,	....	1	....	....	1	....	....	....	1	....	....	....	3
Italian,	....	....	2	1	....	1	....	1	....	1	2	1	9
Slavonian,	1	....	....	....	1	....	....	1	....	....	....	....	3
Austrian,	....	....	1	....	....	1	1	1	1	1	....	....	6
Horwat,	....	2	....	....	....	....	....	....	....	....	....	....	2
Totals,	1	4	6	2	3	2	3	6	3	3	2	2	37

TABLE H.—Nationality of Persons Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
American,	1	....	....	....	....	....	....	....	....	....	1	1	3
English,	....	....	1	....	....	....	....	....	....	....	....	....	1
Polish,	....	....	....	....	2	2	1	2	1	1	1	2	12
Hungarian,	....	....	....	1	....	....	1	....	....	....	....	1	3
Italian,	....	....	....	....	....	....	1	1	1	1	....	2	6
Slavonian,	1	2	2	....	....	1	1	2	....	....	1	....	10
Russian,	1	....	....	....	....	....	....	2	....	....	....	1	4
Horwat,	1	....	1	....	....	....	....	....	....	....	....	....	2
Totals,	4	2	4	1	2	3	4	7	2	2	3	7	41

TABLE I.—Operators and mines, kind of openings, type and size of fans, size of furnaces, volume of air produced by fan or furnace per minute, number of splits of air currents and number of persons employed inside

Names of Operators and Mines	Kind of opening	Gaseous or non-gaseous	Method of ventilation	Diameter of fan in feet and inches	Width of blades in feet and inches	Depth of blades in feet and inches	Number of revolutions per minute	Water gauge developed—in inches	Name of fan	Power used	Area of furnace bars in square feet	Number of splits of air currents	Number of cubic feet of air per minute entering the mine at inlet	Total number of cubic feet of air per minute circulating in all the splits	Number of cubic feet of air per minute passing out at outlet	Number of persons employed inside
Jamison Coal and Coke Co.																
Jamison No. 1, ...	Slope,.....	Gaseous, ..	Fan, ...	16.0	7.0	4.5	90	1.3	Lepley, ...	Steam,......	..	5	98,000	68,000	98,180	243
Jamison No. 2, ...	Shaft,.....	Non-gas., .	Fan, ...	13.5	7.0	5.5	95	1.8	Capell, ...	Steam,......	..	7	104,240	67,700	104,350	334
Jamison No. 3, ...	Shaft,.....	Non-gas., .	Fan, ...	13.5	7.0	5.5	130	2.0	Capell, ...	Steam,......	..	8	125,300	84,450	130,000	286
Jamison No. 4, ...	Slope,.....	Non-gas., .	Fan, ...	18.0	7.5	4.0	80	2.0	Capell, ...	Steam,......	..	7	144,750	69,675	144,820	422
Jamison No. 5, ...	Drift, ...	Non-gas., .	Fan, ...	10.0	3.0	2.5	60	.1	Brazil, ...	Steam,......	..	1	21,000	9,600	21,130	10
Jamison No. 6, ...	Slope,.....	Non-gas., .	Fan, ...	15.0	6.0	4.0	70	.6	Guibal, ...	Electricity,.	..	3	60,500	33,400	60,590	90
Latrobe-Connellsville Coal and Coke Co.																
Saxman, ...	Shaft,.....	Non-gas., .	Fan, ...	20.0	6.5	7.0	60	.8	Brazil, ...	Steam,..	..	2	105,000	37,200	105,180	123
Superior No. 1, ...	Shaft,.....	Non-gas., .	Fan, ...	12.0	3.5	3.0	90	.5	Brazil, ...		..	2	45,300	26,800	45,480	59
Superior No. 2, ...	Drift, ...	Non-gas., .	Fan, ...	12.0	4.5	3.0	80	.5	Brazil, ...		..	2	22,950	16,900	23,000	90
Gilson, ...	Slope,.....	Non-gas., .	Fan, ...	20.0	6.5	7.0	65	1.0	Brazil, ...		..	3	64,400	43,800	64,580	202
Derry No. 1, ...	Shaft,.....	Non-gas., .	Fan, ...	16.0	7.0	4.5	80	2.0	Capell, ...		..	6	70,000	52,520	70,120	347
Derry No. 2, *..............	Shaft,.....	Non-gas., .	Fan, ...	20.0	6.0	5.0	50	.....	Guibal, ...		..	1	42,000	14,080	42,440	2
Millwood.	Shaft,.....	Gaseous, ..	Fan, ...	13.5	4.0	5.0	120	1.0	Capell, ...		..	2	63,000	29,400	65,000	125
Hostetter-Connellsville Coke Co.																
Hostetter, ...	Slope,.....	Gaseous, ..	Fan, ...	20.0	8.0	5.0	85	2.5	Lepley, ...	Steam,......	..	5	121,200	68,680	121,340	197
Whitney, ...	Slope,.....	Gaseous, ..	Fan, ...	20.0	9.0	4.5	80	1.5	Robinson,	Steam,......	..	4	91,020	68,300	91,130	185

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*Idle except for pumping purposes.

Keystone Coal and Coke Co.																
Salem, ...	Drift, ...	Non-gas., .	Fan, ...	15.0	7.0	4.5	128	2.4	Capell, ...	Steam, ...	..	8	120,645	76,180	124,850	278
				10.0	3.0	4.5	107	.2	Stine, ...							
Huron No. 1, ...	Drift, ...	Non-gas., .	Fan, ...	10.0	3.5	3.0	40	.1	Brazil, ...	Steam, ...	..	1	14,400	7,000	14,510	98
Huron No. 2, ...	Drift, ...	Non-gas., .	Fan, ...	10.0	3.5	3.0	40	.4	Brazil, ...	Steam, ...	..	1	14,400	12,600	14,580	
Huron No. 3, ...	Drift, ...	Non-gas., .	Fan, ...	12.0	4.0	3.5	88	.7	Brazil, ...	Steam, ...	..	3	60,200	35,690	60,330	
H. C. Frick Coke Co.																
Baggaley, ...	Slope, ...	Gaseous, ..	Fan, ...	20.0	6.0	5.0	90	2.0	Guibal, ...	Steam, ...	..	5	112,500	87,200	113,000	261
Dorothy, ...	Shaft, ...	Non-gas., .	Fan, ...	20.0	6.5	5.0	60	.9	Guibal, ...	Steam, ...	..	4	75,880	58,740	75,910	123
Monastery, ...	Slope, ...	Non-gas., .	....	......	......	....	......	†	....	....	..	1	13,000	13,000	12,960	61
New Alexandria Coke Co.																
No. 1, ...	Drift, ...	Non-gas., .	Fan, ...	6.0	2.5	2.3	200	.1	Stine, ...	Steam, ...	..	1	31,680	14,400	31,800	49
No. 2, ...	Drift, ...	Non-gas., .	Fan, ...	8.0	3.5	3.2	300	.2	Stine, ...	Electricity, .	..	3	72,600	34,900	72,800	133
No. 3, ...	Drift, ...	Non-gas., .	Fan, ...	6.0	2.5	2.3	200	.1	Stine, ...	Electricity, .	..	1	32,910	21,400	33,000	61
Atlantic Crushed Coke Co.																
Atlantic No. 2, ...	Slope, ...	Non-gas., .	Fan, ...	6.0	4.0	2.5	160	.2	Capell, ...	Steam, ...	..	1	37,000	21,260	37,120	41
Atlantic No. 3, ...	Shaft, ...	Gaseous, ..	Fan, ...	16.0	4.5	2.8	80	.8	Brazil, ...	Steam, ...	..	3	33,000	20,700	33,140	116
Atlantic No. 4, ...	Shaft, ...	Non-gas., .	Fan, ...	9.0	3.5	2.9	52	.2	Clifford, ..	Steam, ...	..	1	28,000	19,040	28,140	49
Shenango Furnace Co.																
Wilpen, ...	Drift, ...	Non-gas., .	Fan, ...	8.0	2.0	3.0	250	.3	Stine, ...	Electricity, .	..	2	62,860	34,300	63,000	172
Latrobe Coal Co.																
Latrobe No. 1, ...	Slope, ...	Non-gas., .	Fan, ...	20.0	6.0	4.5	55	.6	Guibal, ...	Steam, ...	..	1	80,000	49,000	79,500	85
Latrobe No. 2, ...	Slope, ...	Non-gas., .	Fan.	20.0	6.0	4.5	60	.8	Guibal, ...	Steam, ...	..	2	108,000	39,260	108,200	121
Donohoe Coke Co.,																
Donohoe, ...	Slope, ...	Gaseous, ..	Fan, ...	11.0	6.5	5.0	160	2.3	Capell, ...	Steam, ...	..	2	96,000	38,000	98,500	116
Loyal Hanna Coal and Coke Co.																
Loyal Hanna, ...	Shaft, ...	Non-gas., .	Fan, ...	18.0	6.0	4.7	55	.4	Brazil, ...	Steam, ...		4	155,800	62,000	142,500	186
				5.0	3.5	4.0	300	1.4	Robinson,	Electricity, .						
				4.0	1.6	1.6	500	.4	Stine, ...	Electricity, .						
Westmoreland-Connellsville Coal and Coke Co.																
Fort Palmer No. 1, ...	Drift, ...	Non-gas., .	Fan, ...	16.0	4.0	4.0	42	.2	Brazil, ...	Electricity, .	..	1	37,260	14,400	37,320	88
Greensburg-Connellsville Coal and Coke Co.																
Old Colony No. 1, ...	Drift, ...	Non-gas., .	Fan, ...	7.0	2.0	3.0	200	.2	Stine, ...	Steam, ...	..	2	38,000	17,200	40,000	49
Old Colony No. 2, ...	Drift, ...	Non-gas., .	Fan, ...	7.0	3.0	1.2	100	.1	Clifford, ..	Steam, ...	..	1	42,400	13,200	42,480	76
Mount Pleasant Coke Co.																
Beatty No. 1, ...	Drift, ...	Non-gas., .	Fan, ...	18.0	6.0	5.0	60	.3	Brazil, ...	Steam, ...	..	6	73,200	72,150	75,000	95
Beatty No. 2, ‡............	Slope, ...	Non-gas., .	Radi. by steam.	......	......	......	......	......	....	....	..	1	18,000	18,000	18,000	9

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†Ventilated by fan at Dorothy mine.
‡New opening in course of construction.

TABLE I.—Continued

Names of Operators and Mines	Kind of opening	Gaseous or non-gaseous	Method of ventilation	Diameter of fan in feet and inches	Width of blades in feet and inches	Depth of blades in feet and inches	Number of revolutions per minute	Water gauge developed—in inches	Name of fan	Power used	Area of furnace bars in square feet	Number of splits of air currents	Number of cubic feet of air per minute entering the mine at inlet	Total number of cubic feet of air per minute circulating in all the splits	Number of cubic feet of air per minute passing out at outlet	Number of persons employed inside
Ligonier Coal Co.																
Ligonier No. 2, ...	Shaft,.....	Non-gas., .	Fan, ...	12.0	4.0	3.0	90	.5	Guibal, ...	Steam,......	..	2	36,000	21,420	36,210	142
Ligonier Diamond Coal and Coke Co.																
Diamond No. 1, ...	Drift, ...	Non-gas., .	Fan, ...	10.0	3.0	2.8	120	.4	Brazil, ...	Steam,......	..	2	36,000	14,280	36,140	50
Diamond No. 2,§...........	Drift, ...	Non-gas., .	Natural, ..	......	......	......	......	......	....	....	..	1	7,000	7,000	7,000	21
Saint Clair Coal Co.																
Saint Clair, ...	Drift, ...	Non-gas., .	Fan, ...	10.0	3.5	2.8	70	.2	Brazil, ...	Steam,......	..	1	28,200	19,040	28,500	51
Ramsey Coal Co., Inc.																
Ramsey, ...	Drift, ...	Non-gas., .	Fan, ...	13.0	3.8	3.3	42	.2	Brazil, ...	Gasoline, ...	..	1	21,000	11,200	21,000	40
Unity-Connellsville Coke Co.																
Elizabeth, ...	Slope,.....	Non-gas., .	Fan, ...	20.0	6.5	6.5	45	.2	Pollock, ..	Steam,......	..	1	49,200	23,800	50,500	52
Unity Coal Co.																
Carney, ...	Slope,.....	Non-gas., .	Fan, ...	5.0	1.5	.7	260	.8	Robinson,	Steam,......	..	3	56,100	36,100	56,400	69
Bessemer Coke Co.																
Duquesne, ...	Slope,.....	Non-gas., .	Fan, ...	18.0	5.5	4.5	60	1.4	Brazil, ...	Steam,......	..	2	41,760	33,600	43,000	164
E. A. Humphries Coal and Coke Co.																
Chester No. 2, ...	Drift, ...	Non-gas., .	Fan, ...	2.0	3.0	1.0	600	......	Robinson,	Steam.......	..	1	18,600	12,600	18,000	42

§New opening in course of construction.

South Ligonier Coal Co.															
No. 1,	Drift,	Non-gas..	Furnace,	......	......	......	......	......	....	....	24	1	24,000	5,760	25,650	36
Whyel Coke Co.															
Ellen No. 1,	Slope,	Non-gas.,	Fan,	4.0	2.0	1.0	400	.1	Robinson,	Steam,	..	1	12,000	7,200	12,090	21
Ellen No. 2,	Drift,	Non-gas.,	Fan,	12.0	4.0	3.0	45	......	Brazil,	Steam,	..	1	15,000	5,200	15,080	28
Ellen No. 3,	Slope,	Non-gas.,	Fan,	10.0	4.0	2.0	43	.1	Brazil,	Steam,	..	1	19,040	12,000	19,210	
Fort Ligonier Coal Co.															
Fort Ligonier No. 1,	Drift,	Non-gas.,	Natural,	......	......	......	......	......	....	....	..	1	3,200	3,200	3,200	9
Marietta-Connellsville Coke Co.															
Marietta,	Drift,	Non-gas.,	Furnace,	......	......	......	......	......	....	....	12	1	9,600	7,200	9,690	15
South Fayette Coke Co.															
Shirey,	Slope,	Non-gas.,	Fan,	10.0	3.0	2.5	70	......	Brazil,	Electricity,	..	1	30,500	11,880	30,630	23
Dornon Coal Co.															
Dornon,	Drift,	Non-gas.,	Furnace,	......	......	......	......	......	....	....	16	1	6,500	4,000	6,760	20
Westmore Coal and Coke Co.															
Westmore,§	Drift,	Non-gas.,	Natural,	......	......	......	....	......	....	....	..	1	....	....	....	20
Connellsville Coke and Fuel Co.															
Hazelburg,§	Drift,	Non-gas.,	Natural,	......	......	......	......	......	....	....	..	1	....	....	....	19

§New opening in course of construction.

NOTE.—Where the inlet quantity greatly exceeds the outlet, the difference is caused, first, by broken surface where a force fan is used; second, where the fan engine is not supplied with a governor to regulate the speed of the fan and keep it constant. The latter also applies to where the outlet quantity greatly exceeds the inlet; an exhaust is used and the conditions are the same. Where the inlet and outlet quantities are the same, or where the inlet is slightly in excess of the outlet, in the absence of broken surface or a variation of the fan speed, the condition is due to temperature. The outside temperature and that of the mine being equal, and no gases being given off from any part of the mine, the inlet and outlet quantities would of course be equal. Where the mine temperature becomes lower than the outside temperature, the volume at the outlet naturally becomes contracted into less space than that at the inlet, which is at a higher temperature, and in the absence of the evolution of any gas from the mine the outlet quantity becomes less in volume than the inlet. Where the inlet quantity exceeds the outlet with furnace ventilation, the cause is broken surface, which allows the natural conditions (due to a variation of temperature caused by different conditions as they are found to exist), to operate against the furnace.

TABLE J.—Mines using coal cutting machines, power used, geological and local names of seams, thickest and thinnest seams where machines are used, and the approximate number of tons produced by machines

Names of Operators	Names of Mines	Kind of opening	Gaseous or non-gaseous	Number of mining machines used	Power used by machines	Geological and local names of seams	Average thickness in inches	Height of Seam in Inches		Approximate number of tons produced by machines
								Thickest	Thinnest	
Jamison Coal and Coke Co., ...	Jamison No. 1, ... Jamison No. 2, ... Jamison No. 3, ... Jamison No. 4, ... Jamison No. 6.	Slope,..... Shaft,..... Shaft,..... Slope,..... Slope,.....	Gaseous, .. Non-gas., . Non-gas., . Non-gas., . Non-gas., .	3 6 6 10 4	Electricity,......	Pittsburgh, ...	84	87	80	137,940 262,000 216,570 483,000 105,700
Totals, ...	....	....	....	29	....	....	......	......	......	1,205,210
Latrobe-Connellsville Coal and Coke Co., ...	Millwood, ...	Shaft,.....	Gaseous, ..	2	Compressed air,.	Pittsburgh, ...	72	84	60	5,941
Hostetter-Connellsville Coke Co., ..	Hostetter, ... Whitney, ...	Slope,..... Slope,.....	Gaseous, .. Gaseous, ..	9 7	Compressed air,.	Pittsburgh, ...	90	96	84	148,555 108,070
Totals, ...	....	....	....	16	....	....	......	......	......	256,625
Keystone Coal and Coke Co., ...	Salem, ...	Drift, ...	Non-gas., .	23	Compressed air,.	Pittsburgh, ...	83	84	82	147,768
H. C. Frick Coke Co., ...	Baggaley, ... Dorothy, ...	Slope,..... Shaft,.....	Gaseous, .. Non-gas., .	1 8	Compressed air,	Pittsburgh, ...	90 72	96 84	84 60	15,394 53,909
Totals, ...	....	....	....	9	....	....	......	......	......	69,303

New Alexandria Coke Co.,	No. 2,	Drift,	Non-gas.,	1	Electricity,	Pittsburgh,	83	84	82	4,790
The Shenango Furnace Co.,	Wilpen,	Drift,	Non-gas.,	1	Electricity,	Pittsburgh,	72	84	60	2,500
Ligonier Coal Co.,	Ligonier No. 2,	Shaft,	Non-gas.,	1	Electricity,	Pittsburgh,	72	84	60	4,000
Unity Coal Co.,	Carney,	Slope,	Non-gas.,	2 2	Electricity, Compressed air,	E or Upper Freeport,	42	48	36	9,867 8,276
Totals,				4						18,143
Grand totals,				86						1,714,280

TABLE 1.—Operators, Location of Mines, Railroads, etc.

Names of Operators and Mines	County	Name of General Superintendent	Post Office	Name of Superintendent	Post Office	Railroad to Mine
Jamison Coal and Coke Co.						
Jamison No. 1,	Westmoreland,	R. H. Jamison,	Greensburg,	A. J. Mase,	Luxor,	Penna, Alexandria Branch
Jamison No. 2,				S. E. Stahl,	Hannastown,	
Jamison No. 3,				R. E. Jamison,	Forbes Road,	
Jamison Nos. 4 and 5,*				T. P. Latta,	Crabtree,	
Jamison No. 6,				Robert P. Jamison,	Forbes Road,	
Latrobe-Connellsville Coal and Coke Co.						
Saxman and Superior No. 1,	Westmoreland,	Edward Soppitt,	Latrobe,	E. M. Saxman,	Latrobe,	Pennsylvania
Gilson and Superior No. 2,				Andrew Smith,	Superior,	Pa., Bradenville Branch
Derry No. 1,				John McDonald,	Bradenville,	Pennsylvania
Derry No. 2,†				J. F. Chrow,	Bradenville,	Pa., Bradenville Branch
Millwood,				William Rigg,	Blairsville, R. D. 3,	Pennsylvania
Hostetter-Connellsville Coke Co.						
Hostetter,	Westmoreland,	W. H. Clingerman,	Scottdale,	R. W. Maher,	Hostetter,	Penna., Unity Branch
Whitney,				George Eustis,	Whitney,	
Keystone Coal and Coke Co.,						
Salem,	Westmoreland,	H. F. Bovard,	Greensburg,	E. C. Taylor,	New Alexandria,	Penna., Alexandria Branch
Huron Nos. 1,* 2 and 3,						
H. C. Frick Coke Co.						
Baggaley,	Westmoreland,	W. H. Clingerman,	Scottdale,	Joseph Malia,	Baggaley,	Penna., Unity Branch
Dorothy and Monastery,				A. F. Downing,	Latrobe,	
New Alexandria Coke Co.						
Nos. 1, 2 and 3,	Westmoreland,	R. H. Jamison,	Greensburg,	C. L. Clark,	New Alexandria,	Penna., Alexandria Branch
Atlantic Crushed Coke Co.						
Atlantic No. 2,	Westmoreland,	H. C. Burket,	Greensburg,	J. R. Tussey,	New Derry,	Penna., Bradenville Branch
Atlantic Nos. 3 and 4,				H. C. McDevitt,		
Shenango Furnace Co.						
Wilpen,	Westmoreland,	C. D. Dyer,	Pittsburgh,	A. K. Renwick,	Wilpen,	Ligonier Valley
Latrobe Coal Co.						
Latrobe Nos. 1 and 2,	Westmoreland,	John Lloyd,	Altoona,	D. W. Jones,	Latrobe,	Pennsylvania

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*Abandoned.
†Idle except for pumping purposes.

Donohoe Coke Co. Donohoe,	Westmoreland,	John P. Donohoe,	Greensburg,	C. Rae King,	Greenwald,	Penna., Alexandria Branch
Loyal Hanna Coal and Coke Co. Loyal Hanna,	Westmoreland,	C. C. Watt,	Philadelphia,	Arch Miller,	Loyal Hanna,	Pennsylvania
Westmoreland-Connellsville Coal and Coke Co. Fort Palmer No. 1,	Westmoreland,	O. G. Leichliter,	Ligonier,	O. G. Leichliter,	Ligonier,	Ligonier Valley
Greensburg-Connellsville Coal and Coke Co. Old Colony Nos. 1 and 2,	Westmoreland,	A. W. Perry,	Ligonier,	A. W. Perry,	Ligonier,	Ligonier Valley
Mount Pleasant Coke Co. Beatty Nos. 1 and 2,‡	Westmoreland,	W. A. Wilson,	Greensburg,	David Hay,	Greensburg, R. D. 5,	Penna., Unity Branch
Ligonier Coal Co. Ligonier No. 2,	Westmoreland,	Edward Soppitt,	Latrobe,	Henry O'Neill,	Derry, R. D. 1,	Penna., Bradenville Branch
Ligonier Diamond Coal and Coke Co. Diamond No. 1, Diamond No. 2,‡	Westmoreland,	Samuel Seger,	Ligonier,	Robert McGinnis, Richard McDowell,	Wilpen, Ligonier,	Ligonier Valley
Saint Clair Coal Co. Saint Clair,	Westmoreland,	Samuel Seger,	Ligonier,	Samuel Seger,	Ligonier,	Ligonier Valley
Ramsey Coal Co., Inc. Ramsey,	Westmoreland,	S. S. Brownfield,	Ligonier,	George E. Alexander,	Wilpen,	Ligonier Valley
Unity-Connellsville Coke Co. Elizabeth,	Westmoreland,	J. F. Irwin,	Latrobe,	J. F. Irwin,	Latrobe,	Ligonier Valley
Unity Coal Co. Carney,	Westmoreland,	Edward Soppitt,	Latrobe,	Thomas Cross,	Latrobe, R. D. 2,	Pennsylvania
Bessemer Coke Co. Duquesne,	Westmoreland,	W. L. Affelder,	Pittsburgh,	J. C. Smith,	Bradenville,	Pennsylvania
E. A. Humphries Coal and Coke Co. Chester No. 2,	Westmoreland,	W. F. Staufer,	Scottdale,	Clarence Deal,	Derry, R. D. 1,	Penna., Bradenville Branch
South Ligonier Coal Co. No. 1,	Westmoreland,	W. H. Lowery,	Ligonier,	W. H. Lowery,	Ligonier,	Ligonier Valley
Whyel Coke Co. Ellen Nos. 1, 2 and 3,	Westmoreland,	Harry Whyel,	Uniontown,	Amsi Struble,	Whitney,	Penna., Unity Branch
Fort Ligonier Coal Co. Fort Ligonier No. 1,	Westmoreland,	James F. Peters,	Latrobe,	John McClane,	Ligonier,	Ligonier Valley

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‡New opening.

TABLE 1.—Continued

Names of Operators and Mines	County	Name of General Superintendent	Post Office	Name of Superintendent	Post Office	Railroad to Mine
Marietta-Connellsville Coke Co.						
Marietta,	Westmoreland,	William Marietta,	Ligonier,	William Marietta,	Ligonier,	Ligonier Valley
South Fayette Coke Co.						
Shirey,	Westmoreland,	J. W. Abraham,	Uniontown,	W. I. Jenkins,	Baggaley,	Penna., Unity Branch
Dornon Coal Co.						
Dornon,*	Westmoreland,	John M. Dornon,	New Alexandria,	John M. Dornon,	New Alexandria,	Penna., Alexandria Branch
Westmore Coal and Coke Co.						
Westmore,‡	Westmoreland,	C. O. Baldwin,	Forbes Road,	Thomas McCartney,	New Alexandria,	Penna., Alexandria Branch
Connellsville Coke and Fuel Co.						
Hazelburg,‡	Westmoreland,	R. Marietta,	Ligonier,	C. B. Marietta,	Ligonier,	Ligonier Valley

*Abandoned.
‡New opening.

TABLE 2.—Number of tons of coal mined and tons of coke produced, number of days worked, number of persons employed, number killed and injured, quantity of powder, dynamite and permissible explosives used, etc.

Names of Operators and Mines	County	Number of tons of coal shipped to market	Number of tons used at mines for steam and heat	Number of tons sold to local trade and used by employes	Number of tons used in manufacture of coke	Total production of coal in tons	Total production of coke in tons	Number of coke ovens	Number of days worked	Number of employes	Number of fatal accidents	Number of non-fatal accidents	Explosives			Number of horses and mules
													Number of pounds of powder used	Number of pounds of dynamite used	Number of pounds of permissible explosives used	
Jamison Coal and Coke Co.																
Jamison No. 1, ...	Westmoreland,	96,384	13,840	2,216	274,890	386,830	159,560	400	305	424	1	....	....	....	†	28
Jamison No. 2, ...		189,960	37,190	3,870	402,910	633,930	239,350	516	300	577	4	4	....	....	†	40
Jamison No. 3, ...		465,670	18,070	2,550	....	486,290	....	......	300	331	6	3	....	....	†	85
Jamison No. 4, ...		328,103	14,500	3,921	481,960	828,490	284,280	507	305	718	4	2	....	....	†	43
Jamison No. 5, ...		18,889	223	38	....	19,150	....	......	260	14	....	....	....	....	†	1
Jamison No. 6, ...		160,003	2,540	707	....	163,250	....	......	298	110	....	9	....	....	†	12
Totals, ...	....	1,259,015	86,363	13,302	1,159,260	2,517,940	683,130	1,423	......	2,174	15	18	....	....	†	159
Latrobe-Connellsville Coal and Coke Co.																
Saxman, ...	Westmoreland,	117,702	4,773	19,200	....	141,675	....	80	306	141	1	....	....	....	†	12
Superior No. 1, ...		69,116	1,145	491	25,247	96,299	16,871	71	307	77	1	2	....	....	†	9
Superior No. 2, ...		120,241	3,008	1,095	....	124,344	....	......	311	100	....	....	....	....	8,000	13
Gilson, ...		162,351	6,158	5	127,275	296,789	93,213	208	306	264	4	....	....	....	16,000	85
Derry No. 1, ...		87,094	10,309	1,016	228,928	327,347	142,313	293	298	473	....	....	....	....	30,750	40
Derry No. 2,*		....	....	......	....	....	....	50	365	7	....	....	....	....	....	.....
Millwood, ...		72,803	8,096	264	....	81,163	....	......	301	154	....	1	....	....	†	17
Totals, ...	....	629,307	33,789	22,071	381,450	1,066,617	252,397	702	......	1,216	6	3	....	....	54,750	126

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*Idle except for pumping purposes.
†No account kept.

TABLE 2.—Continued

Names of Operators and Mines	County	Number of tons of coal shipped to market	Number of tons used at mines for steam and heat	Number of tons sold to local trade and used by employes	Number of tons used in manufacture of coke	Total production of coal in tons	Total production of coke in tons	Number of coke ovens	Number of days worked	Number of employes	Number of fatal accidents	Number of non-fatal accidents	Explosives: Number of pounds of powder used	Explosives: Number of pounds of dynamite used	Explosives: Number of pounds of permissible explosives used	Number of horses and mules
Hostetter-Connellsville Coke Co.																
Hostetter, ...	Westmoreland,	240	14,903	2,736	353,508	371,387	235,671	355	300	338	....	....	....	....	28,000	62
Whitney, ...		720	10,167	6,023	369,056	385,966	246,036	352	298	325	....	....	....	....	14,775	57
Totals, ...	....	960	25,070	8,759	722,564	757,353	481,707	707	......	663	....	....	....	....	42,775	119
Keystone Coal and Coke Co.																
Salem, ...	Westmoreland,	227,041	8,834	3,251	265,793	504,919	171,120	283	299	422	2	3	....	2,050	47,260	48
Huron Nos. 1, 2 and 3,..		83,035	....	442	127,156	210,633	81,768	100	295	140	....	....	....	....	17,640	15
Totals, ...	....	310,076	8,834	3,693	392,949	715,552	252,888	383	......	562	2	3	....	2,050	64,900	63
H. C. Frick Coke Co.																
Baggaley, ...	Westmoreland,	....	15,347	7,413	362,088	384,848	241,339	400	304	382	5	1	....	....	46,275	54
Dorothy, ...		7,399	11,091	1,432	172,611	192,533	115,072	230	294	199	....	....	....	....	32,975	27
Monastery, ...		943	364	217	17,289	18,813	11,526	208	62	103	1	....	....	....	1,225	8
Totals, ...	....	8,342	26,802	9,062	551,988	596,194	367,987	838	......	684	6	1	....	....	80,475	89
New Alexandria Coke Co.																
No. 1, ...	Westmoreland,	105,582	103	66	....	105,751	....	......	306	55	....	....	....	....	5,000	4
No. 2, ...		335,568	2,047	1,226	....	338,841	....	......	305	162	1	1	....	....	13,000	10
No. 3, ...		104,055	27	713	....	104,795	....	......	307	66	....	....	....	....	5,000	6
Totals, ...	....	545,205	2,177	2,005	....	549,387	....	......	......	283	1	1	....	....	23,000	20

Atlantic Crushed Coke Co.																
Atlantic No. 2,	Westmoreland,	55,572	1,164	1,595	....	58,331	....	......	240	50	2	....	....	....	....	7
Atlantic No. 3,		144,532	6,041	512	48,983	200,067	32,655	120	309	166	....	....	....	....	10,155	14
Atlantic No. 4,		90,973	2,190	......	....	93,163	....	60	304	59	....	1	....	....	5,075	3
Totals,		291,077	9,395	2,107	48,982	351,561	32,655	180	......	275	2	1	....	....	15,230	24
Shenango Furnace Co.																
Wilpen,	Westmoreland,	203 710	2,680	1,147	84,271	291,808	52,559	167	304	209	....	....	100	50	575	20
Latrobe Coal Co.																
Latrobe No. 1,	Westmoreland,	....	4,856	767	114,599	120,222	86,588	136	308	148	....	1	....	....	11,750	15
Latrobe No. 2,		151,393	4,782	677	....	156,852	....	......	304	145	1	....	....	....	9,000	15
Totals,		151,393	9,638	1,444	114,599	277,074	86,588	136	......	293	1	1	....	....	20,750	30
Donohoe Coke Co.																
Donohoe,	Westmoreland.	86,966	3,500	1,800	179,560	271,826	112,225	193	309	218	....	5	....	....	26,200	8
Loyal Hanna Coal and Coke Co.																
Loyal Hanna,	Westmoreland,	223,077	10,959	858	3,017	237,911	1,640	78	306	236	....	2	10,000	....	....	22
Westmoreland-Connellsville Coal and Coke Co.																
Fort Palmer No. 1,	Westmoreland,	52,731	2,540	1,093	158,080	214,444	104,031	160	311	142	....	....	....	....	4,000	15
Greensburg-Connellsville Coal and Coke Co.																
Old Colony No. 1,	Westmoreland,	17,682	345	......	55,238	73,265	36,334	128	289	110	1	....	....	....	....	10
Old Colony No. 2,		135,373	327	283	....	135,983	....	......	288	82	1	2	....	....	....	9
Totals,		153.055	672	283	55,238	209,248	36.334	128	......	192	2	2	....	....	....	19
Mount Pleasant Coke Co.																
Beatty Nos. 1 and 2,	Westmoreland,	1,792	2,500	1,576	175,798	181,666	117,199	182	312	167	....	....	....	....	21,500	26
Ligonier Coal Co.																
Ligonier No. 2,	Westmoreland,	143,408	4,126	1,169	8,181	156,884	7,433	50	309	173	....	....	....	....	†	19
Ligonier Diamond Coal and Coke Co.																
Diamond No. 1,	Westmoreland,	84,158	468	470	....	85,096	....	......	296	53	....	....	....	75	3,000	8
Diamond No. 2,		4,715	....	5	....	4,720	....	......	48	24	....	....	....	....	....	4
Totals,		88,873	468	475	....	89,816	....	......	......	77	....	....	....	75	3,000	12
Saint Clair Coal Co.																
Saint Clair,	Westmoreland,	82,835	375	......	....	83,210	... ...	......	300	59	....	1	....	....	....	5

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†No account kept.

TABLE 2.—Continued

Names of Operators and Mines	County	Number of tons of coal shipped to market	Number of tons used at mines for steam and heat	Number of tons sold to local trade and used by employes	Number of tons used in manufacture of coke	Total production of coal in tons	Total production of coke in tons	Number of coke ovens	Number of days worked	Number of employes	Number of fatal accidents	Number of non-fatal accidents	Explosives			Number of horses and mules
													Number of pounds of powder used	Number of pounds of dynamite used	Number of pounds of permissible explosives used	
Ramsey Coal Co., Inc. Ramsey, ...	Westmoreland, ...	67,818	5	74	....	67,897	....	......	306	43	....	....	....	....	....	6
Unity-Connellsville Coke Co. Elizabeth, ...	Westmoreland, ...	....	2,920	730	63,901	67,551	49,267	100	267	95	1	....	....	....	....	5
Unity Coal Co. Carney, ...	Westmoreland, ...	49,433	6,895	345	....	56,678	....	......	268	85	....	3	....	....	10,189	.....
Bessemer Coke Co. Duquesne, ...	Westmoreland, ...	52,880	1,226	120	....	54,226	....	194	128	185	....	....	....	....	....	18
E. A. Humphries Coal and Coke Co. Chester No. 2, ...	Westmoreland, ...	13,381	912	62	31,287	45,642	23,917	50	276	55	....	....	....	....	5,000	6
South Ligonier Coal Co. No. 1, ...	Westmoreland, ...	40,626	....	2,305	....	42,931	....	......	311	41	....	....	8,000	25	....	7
Whyel Coke Co. Ellen No. 1, ... Ellen Nos. 2 and 3, ...	Westmoreland,	....	 525	200 250	12,126 29,040	12,326 29,815	8,064 19,360	40 50	82 182	35 51	....	....	....	....	....	3 5
Totals, ...	....	....	525	450	41,166	42,141	27,444	90	......	86	....	....	....	....	....	8
Fort Ligonier Coal Co. Fort Ligonier No. 1, ...	Westmoreland, ...	25,306	6	78	....	25,390	....	......	306	11	....	....	....	....	....	1

Marietta-Connellsville Coke Co. Marietta, ...	Westmoreland, ...	....	....	122	21,845	21,967	14,604	40	207	38	....	....	....	....	....	4
South Fayette Coke Co. Shirey, ...	Westmoreland, ...	....	....	......	19,470	19,470	12,143	36	149	39	....	....	....	....	....	4
Dornon Coal Co. Dornon, ...	Westmoreland, ...	17,371	5	40	....	17,416	....	......	199	24	1	....	....	....	....	4
Westmore Coal and Coke Co. Westmore, ...	Westmoreland, ...	5,284	....	......	....	5,284	....	......	76	23	....	....	....	....	300	3
Connellsville Coke and Fuel Co. Hazelburg, ...	Westmoreland, ...	2,380	5	......	....	2,385	....	80	231	33	....	....	....	....	....	4
Grand totals, ...	....	4,506,306	242,387	75,170	4,213,606	9,037,469	[illegible],716,148	5,917	......	8,381	37	41	18,100	2,200	372,644	846

TABLE 2—Part 2

Names of Operators	County	Number of Boilers					Locomotives				Number of steam engines of all classes	Total horse power	Number of pumps delivering water to surface	Capacity in gallons per minute	Quantity delivered to surface per minute—gallons	Number of electric dynamos	Number of air compressors
		Cylindrical	Horse power	Tubular	Horse power	Total horse power	Gasoline	Steam	Air	Electric							
Jamison Coal and Coke Co., ..	Westmoreland,	......	......	33	10,850	10,850	......	2	......	14	81	5,900	12	6,500	*	7	......
Latrobe-Connellsville Coal and Coke Co., ...		2	60	26	2,690	2,750	5	3	2	4	81	2,514	21	12,628	7,385	7	3
Hostetter-Connellsville Coke Co., ...		......	......	26	3,430	3,430	......	3	......	......	18	2,716	7	6,600	2,000	1	2
Keystone Coal and Coke Co.,		......	......	10	3,000	3,000	......	......	8	1	20	1,625	6	2,400	2,000	2	6
H. C. Frick Coke Co., ...		......	......	22	3,270	3,270	......	3	2	......	21	2,900	10	7,172	3,036	1	5
New Alexandria Coke Co., ..		......	......	3	325	325	......	......	......	2	3	325	......	......	......	2	......
Atlantic Crushed Coke Co., ..		......	......	9	1,350	1,350	......	......	......	5	11	1,242	3	1,550	600	2	......
Shenango Furnace Co., ...		......	......	3	450	450	......	......	......	1	3	550	......	......	......	3	......
Latrobe Coal Co., ...		......	......	12	1,320	1,320	......	1	......	......	12	845	11	4,700	1,760	......	......
Donohoe Coke Co., ...		......	......	4	600	600	......	......	......	1	5	750	3	2,500	1,000	3	1
Loyal Hanna Coal and Coke Co., ...		......	......	14	1,595	1,595	......	1	......	3	4	300	9	7,600	1,909	2	......
Westmoreland - Connellsville Coal and Coke Co., ...		......	......	2	300	300	......	......	......	1	2	345	......	......	......	2	......
Greensburg-Connellsville Coal and Coke Co., ...		......	......	2	200	200	1	......	......	......	2	80	2	150	150	......	......
Mount Pleasant Coke Co., ...		......	......	2	300	300	......	......	......	......	7	450	2	750	300	......	......
Ligonier Coal Co., ...		......	......	3	300	300	......	......	......	1	5	500	4	1,600	1,600	1	1
Ligonier Diamond Coal and Coke Co., ...		......	......	2	60	60	1	......	......	......	1	10	1	150	75	......	......
Saint Clair Coal Co., ...		1	60	......	....	60	......	......	......	......	1	50	......	......	......	......	......
Ramsey Coal Co., Inc., ...		......	......	......	....	....	......	......	......	......	......	......	1	80	80	......	......
Unity-Connellsville Coke Co.,		......	......	4	475	475	......	......	......	1	2	185	3	1,400	250	......	......
Unity Coal Co., ...		......	......	4	500	500	......	......	......	2	......	......	2	450	450	1	1

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*No record kept.

Bessemer Coke Co.,	Westmoreland,	......	......	3	325	325	......	......	......	......	1	160	......	......	......	......	......
E. A. Humphries Coal and Coke Co.,		......	......	2	200	200	......	......	......	1	3	400	1	2,500	2,000	1	......
Whyel Coke Co.,		......	......	1	100	100	......	......	......	......	1	15	......	......	......	......	......
Connellsville Coke and Fuel Co.,		......	......	1	120	120	......	......	......	......	......	......	......	......	......	......	......
Totals,	....	3	120	189	31,760	31,880	7	13	12	37	179	21,862	98	58,680	24,535	35	19

TABLE 3.—Number of Each Class of Employes Inside and Outside of Mines

Names of Operators	County	Inside												Outside								Grand total inside and outside
		Mine foremen	Assistant mine foremen	Fire bosses	Miners	Machine runners	Machine loaders	Machine scrapers	Drivers and runners	Doorboys and helpers	Company men	All other employes	Total inside	Superintendents	Foremen	Blacksmiths and carpenters	Engineers and firemen	Coke employes	Bookkeepers and clerks	All other employes	Total outside	
Jamison Coal and Coke Co., ..	Westmoreland,	6	9	18	414	35	356	35	206	19	224	63	1,385	5	9	39	41	502	10	183	789	2,174
Latrobe-Connellsville Coal and Coke Co., ...		6	3	9	725	2	7	2	85	17	61	31	948	6	2	17	33	114	7	89	268	1,216
Hostetter-Connellsville Coke Co., ...		2	3	8	169	14	71	14	32	2	49	18	382	2	3	18	19	207	4	28	281	663
Keystone Coal and Coke Co.,		3	1	3	213	5	60	5	52	4	30	....	376	2	2	13	18	108	4	39	186	562
H. C. Frick Coke Co., ...		3	3	7	244	4	9	4	39	4	120	8	445	3	6	14	24	118	4	70	239	684
New Alexandria Coke Co., ..		3	1	....	198	1	5	1	20	2	17	....	248	1	1	4	4	......	2	23	35	283
Atlantic Crushed Coke Co., ..		3	1	1	158	....	....	....	21	2	15	5	206	3	2	6	9	25	2	22	69	275
Shenango Furnace Co., ...		1	1	....	135	1	....	1	14	6	9	4	172	1	3	5	6	10	2	10	37	209
Latrobe Coal Co., ...		2	....	2	163	....	....	....	18	....	20	1	206	2	1	6	11	45	2	20	87	293
Donohoe Coke Co., ...		1	1	1	96	....	....	....	7	....	3	7	116	1	1	6	6	71	1	16	102	218
Loyal Hanna Coal and Coke Co., ...		1	2	....	133	....	....	....	20	1	20	9	186	1	2	5	8	15	2	17	50	236
Westmoreland - Connellsville Coal and Coke Co., ...		1	1	....	66	....	....	....	12	1	....	7	88	2	3	5	3	27	1	13	54	142
Greensburg-Connellsville Coal and Coke Co., ...		2	....	....	105	....	....	....	14	....	4	....	125	1	....	2	1	55	2	6	67	192
Mount Pleasant Coke Co., ...		1	....	....	81	....	....	....	8	3	8	3	104	1	2	2	6	38	1	13	63	167
Ligonier Coal Co., ...		1	1	1	88	1	15	1	15	3	16	....	142	1	....	3	3	16	1	7	31	173
Ligonier Diamond Coal and Coke Co., ...		2	1	....	53	....	....	....	6	1	6	2	71	....	....	....	1	......	....	5	6	77
Saint Clair Coal Co., ...		1	....	....	40	....	....	....	5	2	3	....	51	1	....	2	1	......	1	3	8	59
Ramsey Coal Co., Inc., ...		1	....	....	32	....	....	....	4	1	....	2	40	....	....	....	....	......	....	3	3	43
Unity-Connellsville Coke Co.,		1	....	....	42	....	....	....	4	1	2	2	52	1	1	3	3	22	1	12	43	95
Unity Coal Co., ...		1	....	1	26	4	22	4	4	1	6	....	69	1	....	2	5	......	1	7	16	85
Bessemer Coke Co., ...		1	1	1	120	....	....	....	15	6	8	12	164	1	....	3	3	......	1	13	21	185
E. A. Humphries Coal and Coke Co., ...		1	....	....	35	....	....	....	3	....	3	....	42	1	1	1	2	7	....	1	13	55

South Ligonier Coal Co.,	Westmoreland,	1	....	....	25	....	....	....	7	....	3	....	36	1	....	....	....	......	1	3	5	41
Whyel Coke Co.,		2	....	....	35	....	....	....	5	2	5	....	49	2	2	2	2	27	2	....	37	86
Fort Ligonier Coal Co.,		1	....	....	7	....	....	....	1	....	....	....	9	....	....	....	....	......	1	1	2	11
Marietta - Connellsville Coke Co.,		1	....	....	10	....	....	....	2	....	1	1	15	1	1	....	....	20	....	1	23	33
South Fayette Coke Co.,		1	....	....	15	....	....	....	3	....	4	....	23	....	....	1	1	10	....	4	16	39
Dornon Coal Co.,		1	....	....	15	....	....	....	2	1	1	....	20	1	....	....	....	......	....	3	4	24
Westmore Coal and Coke Co.,		1	....	....	15	....	....	....	2	....	2	....	20	1	....	....	....	......	....	2	3	23
Connellsville Coke and Fuel Co.,		1	....	....	11	....	....	....	1	....	4	2	19	1	1	2	....	......	....	10	14	33
Totals,		53	29	52	3,469	67	545	67	627	79	644	177	5,809	44	43	161	210	1,437	53	624	2,572	8,381

TABLE 3.—Part 2

Names of Operators	County	Average Number of Days Worked												
		January	February	March	April	May	June	July	August	September	October	November	December	Total
Jamison Coal and Coke Co.,	Westmoreland,	26	24	28	25	26	25	26	26	25	27	22	20	295
Latrobe-Connellsville Coal and Coke Co.,		26	24	27	27	27	26	26	27	26	27	25	25	313
Hostetter-Connellsville Coke Co.,		27	24	26	25	27	25	28	26	25	26	21	21	299
Keystone Coal and Coke Co.,		25	28	25	24	25	23	25	26	26	26	23	26	297
H. C. Frick Coke Co.,		27	24	21	17	18	17	17	17	17	18	15	12	220
New Alexandria Coke Co.,		26	24	25	26	27	25	26	26	26	27	24	24	306
Atlantic Crushed Coke Co.,		27	23	24	21	22	22	25	23	24	25	24	24	284
Shenango Furnace Co.,		27	24	25	23	26	25	25	26	26	27	24	26	304
Latrobe Coal Co.,		27	22	26	26	26	25	26	26	25	27	24	26	306
Donohoe Coke Co.,		27	25	26	26	27	25	26	27	25	27	25	23	309
Loyal Hanna Coal and Coke Co.,		27	24	26	26	25	25	26	26	26	24	25	26	306
Westmoreland-Connellsville Coal and Coke Co.,		27	24	26	26	27	25	26	26	26	27	25	26	311
Greensburg-Connellsville Coal and Coke Co.,		26	22	25	26	22	23	25	25	24	25	25	21	289
Mount Pleasant Coke Co.,		27	25	26	26	27	25	25	26	26	27	26	26	312
Ligonier Coal Co.,		27	24	26	26	26	25	26	26	26	26	25	26	309
Ligonier Diamond Coal and Coke Co.,		13	11	12	12	14	12	13	13	12	13	24	23	172
Saint Clair Coal Co.,		23	24	26	26	26	25	26	25	25	24	25	25	300
Ramsey Coal Co., Inc.,		27	24	26	26	25	25	26	24	26	27	24	26	306
Unity-Connellsville Coke Co.,		25	24	26	24	22	23	19	20	24	21	20	19	267
Unity Coal Co.,		22	21	23	24	24	23	21	20	21	24	21	24	268
Bessemer Coke Co.,		......	......	......	......	......	......	......	26	26	27	25	24	128
E. A. Humphries Coal and Coke Co.,		25	19	14	18	28	25	25	25	26	25	25	26	276
South Ligonier Coal Co.,		26	25	24	28	28	25	27	26	26	27	24	25	311
Whyel Coke Co.,		16	17	21	18	22	7	10	10	11	......	....	......	132
Fort Ligonier Coal Co.,		27	24	26	25	26	25	26	25	26	26	24	26	306
Marietta-Connellsville Coke Co.,		27	24	27	25	27	......	......	......	......	26	25	26	207
South Fayette Coke Co.,		27	24	28	22	26	24	3	......	......	......	......	......	149
Dornon Coal Co.,		26	28	26	23	26	23	20	22	10	......	......	......	199
Westmore Coal and Coke Co.,		......	......	....	......	......	......	......	......	......	24	26	26	76
Connellsville Coke and Fuel Co.,		......	......	......	25	26	25	26	26	26	26	25	26	231

TABLE 4.—Fatal Accidents Inside and Outside of Mines

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Number of widows	Number of orphans	Name of Mine	County	Nature and Cause of Accident in Brief
Jan. 15	Joseph Patric, ...	Slavonian, ..	Miner, ...	35	M.	1	2	Jamison No. 2, ...	Westmoreland,	Killed by fall of roof at face of pillar.
Feb. 7	George Galatoes, ...	Hungarian, .	Miner, ...	42	M.	1	3	Jamison No. 3, ...		Fatally injured by fall of coal at face of room.
18	Steve Rocknage, ...	Horwat, ...	Miner, ...	19	S.	....	....	Jamison No. 4, ...		Fatally injured by fall of slate in room cutthrough.
21	Michael Radashin, ..	Horwat, ...	Miner, ...	35	M.	1	3	Old Colony No. 1,..		Fatally injured by fall of slate at face of pillar.
27	Antonia Turock, ...	Polish,......	Miner, ...	27	S.	....	....	Jamison No. 4, ...		Killed by fall of slate on entry.
March 3	Ernest Noble, ...	Italian,.....	Miner, ...	30	S.	....	....	Jamison No. 3, ..		Killed by fall of slate at face of pillar.
	Frank Waller, ...	Italian,.....	Miner, ...	35	M.	1	5			
4	Albert Sperka, ...	Polish,......	Miner, ...	43	M.	1	2	Jamison No. 1, ...		Killed by fall of roof at face of pillar.
13	Samuel Rose, ...	American, ..	Coke employe	48	M.	1	....	Monastery, ...		Fatally injured. Run over by coke oven larry. Outside.
15	Michael Pelick, ...	Austrian, ..	Miner, ...	38	W.	....	....	Elizabeth, ...		Killed by fall of roof at face of pillar.
28	Charles Medley, ...	English, ...	Fireman, ...	36	M.	1	1	Latrobe No. 2, ...		Fatally injured. Fell from trestle at boiler house. Outside.
April 5	Marko Luigi, ...	Italian,.....	Miner, ...	33	M.	1	....	Gilson, ...		Killed by fall of slate at face of room.
24	Felix Kran, ...	Polish,......	Driver, ...	18	S.	....	....	Jamison No. 4, ...		Killed by fall of slate in entry cutthrough.
May 22	Michael Tretnick, ...	Slavonian, ..	Miner, ...	33	M.	1	3	Gilson, ...		Killed by fall of slate near face of pillar.
26	Gaber Nemitts, ...	Hungarian, .	Loader, ...	41	M.	1	3	Jamison No. 3, ...		Fatally injured by fall of coal at face of room.
29	Joseph Peitel, ...	Polish,......	Runner, ...	29	M.	1	....	Jamison No. 2, ...		Killed by being caught under derailed trip of cars on entry.
June 12	Michael Kaivage, ...	Austrian, ..	Runner, ...	16	S.	....	....	Jamison No. 2, ...		Killed by fall of roof on entry.
17	Antonia Defonce, ...	Italian,.....	Miner, ...	32	S.	....	....	Baggaley, ...		Killed by fall of slate near face of pillar.
July 9	Enoch Cook, ...	Polish,......	Coke employe	30	M.	1	2	Baggaley, ...		Killed by electric shock. He came in contact with exposed part of controller lever of coke drawing machine on coke yard. The machine carried 500 volts. Outside.
21	Charles Minko, ...	Austrian, ..	Miner, ...	30	M.	1	4	Baggaley, ...		Fatally injured by fall of slate in pillar work.
24	Michael Boras, ...	Polish,......	Miner, ...	25	M.	1	1	Dornon, ...		Killed by fall of slate at face of room.
Aug. 9	Joseph Robinski, ...	Polish,......	Miner, ...	44	M.	1	6	Atlantic No. 2, ..		Killed by fall of roof at face of pillar.
	Charles Hostage, ...	Slavonian, ..	Miner, ...	37	M.	1	6			
14	Michael Magac, ...	Austrian, ..	Loader, ...	26	S.	....	....	Salem, ...		Fatally injured by fall of slate at face of room.

TABLE 4—Continued

Date of accident		Name of Person	Nationality	Occupation	Age	Married or single	Number of widows	Number of orphans	Name of Mine	County	Nature and Cause of Accident in Brief
Aug.	15	Leo Bryner, ...	American, ..	Motorman, ..	19	S.	....	....	Gilson, ...	Westmoreland,	Killed by running his motor into trap door on entry.
	21	Robert McGinnis, ...	Scotch, ...	Miner, ...	44	M.	....	....	Superior No. 1, ...		Killed by discharge of explosives he carried in his pocket (Tunnelite No. 6 and detonators). He placed a dry cell battery in his pocket with them. Outside.
	29	Antonia Cannon, ...	Italian, ...	Company man	30	M.	1	4	Baggaley, ...		Killed by fall of slate on entry.
Sept.	6	George Bendo, ...	Hungarian, .	Miner, ...	48	M.	1	2	New Alexandria No. 2.		Fatally injured by fall of slate at face of room.
	9	John Lowery, ...	Austrian, ..	Miner, ...	42	M.	1	3	Old Colony No. 2,..		Fatally injured by fall of roof at face of pillar.
	29	James Haggerty, ...	American, ..	Road boss, ..	45	M.	1	4	Jamison No. 4, ...		Fatally injured. Caught between car and brick arch on slope.
Oct.	11	Jacob Beneditti, ...	Italian, ...	Loader, ...	19	S.	....	....	Jamison No. 2, ...		Fatally injured by fall of slate at face of room.
	27	William Welsh, ...	American, ..	Motorman, ..	17	S.	....	....	Gilson, ...		Killed by being run over by motor on entry.
	29	Daniel Bobrick, ...	Austrian, ..	Driver, ...	19	S.	....	....	Jamison No. 3, ...		Fatally injured. Caught between car and coal pillar on entry.
Nov.	3	Louis Harbitch, ...	Italian, ...	Miner, ...	45	M.	1	3	Jamison No. 3, ...		Fatally injured by fall of slate at face of room.
	10	Raphael, Conti, ...	Italian, ...	Miner, ...	28	M.	1	3	Saxman, ...		Killed by fall of slate at face of room.
Dec.	3	Joseph Campinnizzi, ..	Italian, ...	Miner, ...	35	M.	1	3	Salem, ...		Killed by fall of slate at face of pillar.
	12	Harry Coleman, ...	American, ..	Miner, ...	45	M.	1	....	Baggaley, ...		Killed by being struck by post in pillar work.

TABLE 5.—Non-Fatal Accidents Inside and Outside of Mines

Date of accident		Name of Person	Nationality	Occupation	Age	Married or single	Name of Mine	County	Nature and Cause of Accident in Brief
Jan.	3	Charles Fedornik, ...	Russian, ...	Miner, ...	40	M.	Salem, ...	Westmoreland,	Leg broken by fall of slate at face of pillar
	13	Henry Wilt, ...	American, ..	Miner, ...	40	S.	Carney, ...		Face burned and bruised by blast at face of room.
	15	George Drazenovh, ...	Horwat, ...	Miner, ...	34	M.	Jamison No. 2, ...		Arm and leg broken by fall of slate at face pillar.
	30	Adam Garvirh, ...	Slavonian, ..	Driver, ...	24	S.	Jamison No. 4, ...		Wrist broken. Caught between cars in room.
Feb.	13	Andrew Gragor, ...	Slavonian, ..	Miner, ...	29	M.	Old Colony No. 2, ...		Arm broken. Caught between car and door on entry.
	28	John Concheck, ...	Slavonian, ..	Driver, ...	26	S.	Jamison No. 2, ...		Arm broken. Caught between car and coal pillar in room.
March	1	Michael Pearlish, ...	Horwat, ...	Miner, ...	35	M.	Jamison No. 2, ...		Leg broken by fall of slate at face of pillar.
	4	Michael Cardock, ...	Slavonian, ..	Miner, ...	31	M.	Donohoe, ...		Leg broken by fall of slate in pillar work.
		Frederick Smith, ...	English, ...	Company man, ..	44	M.	Jamison No. 6, ...		Finger crushed by T iron rail falling on it on entry. Had to be amputated.
		Michael Seamon, ...	Slavonian, ..	Miner, ...	38	M.	Jamison No. 6, ...		Left hand blown off by blast at face of room.
April	26	Michael Poolish, ...	Hungarian, ..	Runner, ...	20	S.	Old Colony No. 2, ...		Small bone in foot broken. Caught between cars on inside side track.
May	11	Frank Francis, ...	Polish,......	Miner, ...	18	S.	Donohoe, ...		Leg broken by fall of slate at face of pillar.
	14	Lucly Bushlock, ...	Polish,......	Driver, ...	29	M.	Jamison No. 6, ...		Leg and foot fractured. Thrown from trip of derailed cars on entry.
June	6	Steven Dubosky, ...	Slavonian, ..	Miner, ...	31	M.	Donohoe, ...		Leg broken by fall of slate near face of pillar.
	18	Alex. Krowkowoz, ...	Polish,......	Miner, ...	35	S.	Loyal Hanna, ...		Index finger and thumb blown off by blast at face of room.
	20	Matews Lach, ...	Polish,......	Miner, ...	45	M.	Jamison No. 2, ...		Leg broken by fall of coal at face of pillar.
July	9	Joseph Kensik, ...	Polish,......	Loader, ...	27	S.	Carney, ...		Leg broken by fall of slate at face of entry.
	12	William Motsner, ...	Slavonian, ..	Miner, ...	50	M.	Latrobe No. 1, ...		Shoulder dislocated. He slipped and fell under car while pushing it in room.

TABLE 5—Continued

Date of accident		Name of Person	Nationality	Occupation	Age	Married or single	Name of Mine	County	Nature and Cause of Accident in Brief
July	24	John Barrow,	Hungarian,	Machine runner,	37	S.	Jamison No. 6,	Westmoreland,	Four fingers crushed by mining machine at face of room. A part of each finger had to be amputated.
	25	Michael Rich,	Italian,	Coke employe,	23	S.	Salem,		Leg, arm and one rib broken. Caught between railroad car and coke yard wall. Outside.
Aug.	5	George Verboski,	Slavonian,	Miner,	26	M.	Loyal Hanna,		Arm broken by fall of slate near face of pillar.
	8	Alex Paulik,	Polish,	Machine runner,	35	S.	Jamison No. 6,		Foot lacerated. Caught in chain mining machine at face of entry.
	13	Metro Rila,	Russian,	Miner,	37	M.	Jamison No. 3,		Back broken by fall of slate at face of room.
		Toter Morros,	Russian,	Miner,	44	M.	Jamison No. 3,		Head bruised and leg sprained by fall of slate at face of room.
	19	Steven Margatine,	Slavonian,	Miner,	23	S.	Donohoe,		Foot crushed by fall of slate at face of room cutthrough. Had to be amputated.
	27	Julius Kotcoski,	Polish,	Miner,	27	S.	Millwood,		Leg broken by fall of slate near face of room.
	29	Michael Decannon,	Italian,	Company man,	35	M.	Baggaley,		Head, knee and back injured by fall of slate on entry.
Sept.	5	Samuel Farnigi,	Italian,	Miner,	50	M.	Salem,		Leg broken by fall of coal at face of pillar.
	23	John Cruell,	Polish,	Miner,	48	M.	Donohoe,		Leg broken by fall of slate at face of pillar.
Oct.	10	Orlando Tranquella,	Italian,	Miner,	22	S.	Jamison No. 4,		Foot bruised and toe broken by fall of coal at face of pillar.
	24	Walter Nodlecluski,	Polish,	Driver,	34	M.	Superior No. 1,		Side and leg injured by fall of slate on entry.
Nov.	3	John Gregory,	Slavonian,	Miner,	40	M.	New Alexandria No. 2,		Ankle broken by fall of slate at face of room.
	15	Thomas Price,	American,	Driver,	30	S.	Jamison No. 6,		Arm broken. Fell from car on entry.
	17	George Ogloski,	Polish,	Miner,	26	S.	Jamison No. 6,		Body and legs bruised by fall of coal from side of pillar.
Dec.	1	John Broski,	Polish,	Miner,	23	S.	Superior No. 1,		Leg broken by fall of slate in room.

Dec. 6	Dollosenta Florendo, ..	Italian, ...	Miner, ...	39	M.	Atlantic No. 4, ...	Westmoreland,	Tendon in arm broken. Caught between cars on entry.
	Andrew Valincia, ...	Polish, ...	Machine runner, ..	28	M.	Jamison No. 6, ...		Leg broken. Caught between machine and coal pillar at face of room.
12	Markus Seger, ...	American, ..	Miner, ...	17	S.	Saint Clair, ...		Ankle fractured by fall of slate at face of room.
15	John Lopinsky, Jr., ..	Russian, ...	Miner, ...	20	S.	Jamison No. 6, ...		Toes crushed by fall of slate at face of room.
	Steven Godash, ...	Hungarian, .	Driver, ...	25	M.	Jamison No. 3, ...		Body squeezed. Caught between car and coal pillar on entry.
	Louis Rauso, ...	Italian, ...	Miner, ...	23	M.	Carney, ...		Spine fractured by fall of slate at face of room.

CONDITION OF MINES

JAMISON COAL AND COKE COMPANY

Jamison No. 1.—The volume of air at the working faces is irregular and has been reduced, owing to the excessive use of doors. Drainage good, with some minor exceptions.

Jamison No. 2.—Ventilation is fair in some parts, and the current is very weak in other parts. Drainage good.

Jamison No. 3.—The air is good except in a portion of the south workings where the current has been considerably reduced. Drainage good, with few exceptions. Slate and other debris have been allowed to accumulate along the main south motor road.

Jamison No. 4.—Ventilation is fair except in Nos. 22 and 26 entries off No. 5 right entry, Salem side, where it is not properly conducted to working faces. Drainage good.

Jamison No. 5.—Worked-out and abandoned.

Jamison No. 6.—Ventilation good. Drainage poor in parts of the mine.

LATROBE-CONNELLSVILLE COAL AND COKE COMPANY

Saxman—Ventilation, drainage and timbering, good.

Superior No. 1.—Ventilation and timbering good. Drainage good, with some minor exceptions.

Superior No. 2.—Ventilation and timbering good. Drainage good, with few exceptions.

Gilson—Ventilation and timbering excellent. Drainage is good in some parts and requires improvement in other parts.

Derry No. 1.—Ventilation and timbering good. Drainage good, except in a portion of the dip workings. During the year a change was made from locked safety lamps exclusively to mixed lights.

Derry No. 2.—Idle, except for pumping and ventilation purposes.

Milwood—Ventilation and drainage good in some parts, and only fair in other parts.

HOSTETTER-CONNELLSVILLE COKE COMPANY

Hostetter and Whitney—Ventilation, drainage and timbering, excellent.

KEYSTONE COAL AND COKE COMPANY

Salem—Ventilation and drainage excellent.

Huron No. 1.—Worked-out and abandoned.

Huron Nos. 2 and 3.—Ventilation and drainage good.

H. C. FRICK COKE COMPANY

Baggaley—Ventilation and timbering good. Drainage good, with some minor exceptions.

Dorothy—Ventilation, drainage and timbering, good.

Monastery—Not inspected during the year, owing to operations being suspended since March.

NEW ALEXANDRIA COKE COMPANY

No. 1.—Ventilation and timbering good. Drainage defective in some portions.

No. 2.—Ventilation is good, except in Nos. 10 entry right and 12 entry left, where the current is not carried up. Drainage and timbering good.

No. 3.—Ventilation good. Drainage good, with some exceptions.

ATLANTIC CRUSHED COKE COMPANY

Atlantic No. 2.—Ventilation, drainage and timbering, good.

Atlantic No. 3.—Ventilation at the face of the workings, as a whole, is slightly less than the amount required by law, but the mine throughout is in healthy condition. Drainage good, with some minor exceptions. To improve the ventilation a larger ventilating fan will be installed, and an additional opening made at the extreme end of the workings.

Atlantic No. 4.—Ventilation, drainage and timbering, good.

SHENANGO FURNACE COMPANY

Wilpen—Ventilation, drainage and timbering, good.

LATROBE COAL COMPANY

Latrobe Nos. 1 and 2.—Ventilation, drainage and timbering, good.

DONOHOE COKE COMPANY

Donohoe—Ventilation and drainage excellent.

LOYAL HANNA COAL AND COKE COMPANY

Loyal Hanna—Ventilation, drainage and timbering, good.

WESTMORELAND-CONNELLSVILLE COAL AND COKE COMPANY

Fort Palmer No. 1.—Ventilation and timbering good. Drainage good, except in No. 6 entry section.

GREENSBURG-CONNELLSVILLE COAL AND COKE COMPANY

Old Colony Nos. 1 and 2.—Ventilation, drainage and timbering, good.

MOUNT PLEASANT COKE COMPANY

Beatty No. 1.—Ventilation and timbering good. Drainage good, with few exceptions.

Beatty No. 2.—A new opening in course of construction in the Pittsburgh seam.

LIGONIER COAL COMPANY

Ligonier No. 2.—The volume of air at the face of the workings is not large, but the mine throughout is in healthy condition. Drainage good, with some minor exceptions. A change was made from locked safety lamps exclusively to mixed lights.

LIGONIER DIAMOND COAL AND COKE COMPANY

Diamond No. 1.—Ventilation, drainage and timbering, good.

Diamond No. 2.—A new opening in course of construction in the Pittsburgh seam.

SAINT CLAIR COAL COMPANY

Saint Clair—Ventilation, drainage and timbering, good.

RAMSEY COAL COMPANY, INCORPORATED

Ramsey—Ventilation good. Drainage fair.

UNITY-CONNELLSVILLE COKE COMPANY

Elizabeth—Ventilation and drainage good.

UNITY COAL COMPANY

Carney—Ventilation, drainage and timbering good.

BESSEMER COKE COMPANY

Duquesne—Ventilation and timbering good. Drainage good, with some minor exceptions.

E. A. HUMPHRIES COAL AND COKE COMPANY

Chester No. 2.—Ventilation and drainage good.

SOUTH LIGONIER COAL COMPANY

No. 1.—Ventilation and timbering good. Drainage fair.

WHYEL COKE COMPANY

Ellen Nos. 1, 2 and 3.—Ventilation, drainage and timbering, good.

FORT LIGONIER COAL COMPANY

Fort Ligonier No. 1.—Ventilation fair. Drainage and timbering good. The ventilating fan has been removed and the mine will soon be worked-out and abandoned.

MARIETTA-CONNELLSVILLE COKE COMPANY

Marietta—Ventilation is fair, except in left side idle workings where black-damp has accumulated. Drainage is good.

SOUTH FAYETTE COKE COMPANY

Shirey—Ventilation and timbering good. Drainage good, except in outcrop workings.

DORNON COAL COMPANY

Dornon—Worked-out and abandoned.

WESTMORE COAL AND COKE COMPANY

Westmore—A new opening in course of construction in the Pittsburgh seam.

CONNELLSVILLE COKE AND FUEL COMPANY

Hazelburg—A new opening in couse of construction in the Pittsburgh seam.

IMPROVEMENTS

JAMISON COAL AND COKE COMPANY

Jamison No. 1.—Installed 2 electric motors.
Jamison No. 2.—Installed 3 electric motors.
Jamison No. 3.—Installed 4 electric motors.
Jamison No. 4.—Installed 4 electric motors.
Jamison No. 6.—Installed 1 electric motor.

LATROBE-CONNELLSVILLE COAL AND COKE COMPANY

Superior No. 2.—Concrete drift mouth 75 feet in length and 6 feet in height, and built retaining walls and new trestle for new opening.

Gilson—Concreted slope mouth 50 feet in length and 5 feet in height. Installed 1 gasoline motor. Laid 3,000 feet water line. Built five 8-room double houses and three 6-room single houses.

Millwood—Constructed 2 permanent overcasts and 7 permanent stoppings.

HOSTETTER-CONNELLSVILLE COKE COMPANY

Hostetter—Built 4 permanent stoppings and 2 single and 7 double tenement houses.

Whitney—Built 2 permanent stoppings.

KEYSTONE COAL AND COKE COMPANY

Salem—Eerected one permanent overcast and one outside pumphouse.

H. C. FRICK COKE COMPANY

Baggaley—Constructed 6 permanent stoppings.

NEW ALEXANDRIA COKE COMPANY

No. 1.—Installed 1 electric motor to operate ventilating fan.

No. 2.—Installed one 150 K. W. Ridgway generator and engine. Tipple extended to take care of new mine (No. 4) now being opened.

No. 3.—Installed 1 electric motor to operate ventilating fan.

ATLANTIC CRUSHED COKE COMPANY

Atlantic No. 3.—Built 12 concrete stoppings. Installed a purifying water system for purifying both mine and surface water for boilers and watering coke ovens.

SHENANGO FURNACE COMPANY

Wilpen—Constructed 45 permanent stoppings. Installed 1 Curtis turbine 300 K. W. generator set, two 100 K. W. generator sets, 1 Pneumelectric coal puncher, one 300 H. P. Sterling boiler, 1 Covington coke drawing machine, and 1 leveling machine.

LATROBE COAL COMPANY

Latrobe No. 2.—Built 1 permanent overcast and 1 tile boiler house. Installed 20-foot diameter Guibal ventilating fan, with tile and cement fan and engine house; one 150 H. P. boiler at pumping station, with bore hole to carry live steam to and exhaust from mine; and engines for inside haulage.

DONOHOE COKE COMPANY

Donohoe—Inside: Built one large brick pump house, and arranged all pumps so that water come to suctions under pressure. Abandoned workings sealed off by large brick dams and used as water storages. Outside: Built twelve new houses. Part of these houses are supplied with hot and cold water, bath, toilet, cement cellars, etc. Over one-half of the town has been sewered. All houses electric lighted. Town streets electric lighted and provided with concrete drains and sidewalks. Playgrounds with sand house, see-saws, swings, slides, merry-go-rounds, etc. Shade trees, fruit trees, flowers, etc., have been planted.

WESTMORELAND-CONNELLSVILLE COAL AND COKE COMPANY

Fort Palmer No. 1.—Built 1 permanent overcast and 2 stoppings. Sunk one 8-inch deep well and installed a Downey double-acting deep well pump. Erected four 3-room cottage houses.

GREENSBURG-CONNELLSVILLE COAL AND COKE COMPANY

Old Colony No. 1.— Erected coal washer of 1,000 tons capacity, and 28 beehive coke ovens. Installed 1 pump, with a capacity of 300 gallons per minute, and laid 4,000 feet of pipe line for water supply.

LIGONIER DIAMOND COAL AND COKE COMPANY

Diamond No. 1.—Installed one 7-ton gasoline motor.

RAMSEY COAL COMPANY, INCORPORATED

Ramsey—Installed ventilating fan. Completed new opening for drainage. Built one barn and one dwelling house.

UNITY COAL COMPANY

Carney—Built 60 permanent stoppings.

PROSECUTIONS FOR VIOLATION OF THE MINING LAWS

March 1.—Michael Spetch, miner, Whitney mine, Hostetter-Connellsville Coke Company. Charge: Taking smokers' articles into mine worked exclusively with locked safety lamps. Warrant issued, but defendant so far has avoided arrest.

March 22.—Albert Meidinger, miner, Millwood mine, Latrobe-Connellsville Coal and Coke Company. Charge: Taking smokers' articles into mine worked exclusively with locked safety lamps. Plead guilty. April 21, 1913, discharged under Insolvent Law.

August 22.—Harry Freeman, fire boss, Jamison No. 1 mine, Jamison Coal and Coke Company. Charge: Neglecting and refusing to perform his duties as fire boss. Warrant issued, but defendant so far has avoided arrest.

August 23.—J. C. McDermott, mine foreman, Jamison No. 4 mine, Jamison Coal and Coke Company. Charge: Neglecting to provide suitable protection for the trolley and other bare power electric wires at landings, partings and crossings where said wires were less than six and one-half feet above top of rail. Plead guilty. Sentenced to pay fine of $5.00 and costs, which he paid.

December 31.—Edward Sabosky, miner, Salem mine, Keystone Coal and Coke Company. Charge: Neglecting and refusing to properly mine coal before blasting it. Plead guilty. Sentenced to pay fine of $10.00 and costs.

December 31.—Edward Sabosky, miner, Salem mine, Keystone Coal and Coke Company. Charge: Taking smokers' articles into place worked with locked safety lamps. Plead guilty. Sentenced to pay fine of $5.00 and costs.

MINE FOREMEN'S, ASSISTANT MINE FOREMEN'S AND FIRE BOSSES' EXAMINATIONS

The annual examination of applicants for certificates of qualification as mine foremen, assistant mine foremen and fire bosses was held in Doherty's Hall, Latrobe, May 6, 7 and 8. The Board of Examiners was composed of C. B. Ross, Inspector; John McClane, Superintendent, and D. L. Moore, Miner.

There were 35 applicants for certificates of qualification as mine foremen and assistant mine foremen, and 40 applicants for certificates of qualification as fire bosses. The following persons passed a satisfactory examination and were granted certificates:

MINE FOREMEN

First Grade

William Patton, Robert H. Patton, Albert M. Dullinger, Whitney; Charles Tait, James McCartney, Crabtree; Thomas Fish, New Alexandria.

Second Grade

Charles Martin, Latrobe; George E. Alexander, Wilpen.

ASSISTANT MINE FOREMEN

Charles Martin, Patrick F. McClain, Latrobe; Edward Hall, Harry S. Laughlin, New Alexandria; William Williams, Crabtree; John Kreitzer, Forbes Road; John Seighman, Whitney.

FIRE BOSSES

Martin L. Ryder, Samuel D. Wilcox, Latrobe; Thomas Hall, William H. Keough, Forbes Road; August C. Petrosky, Bernard P. Harty, Whitney; Walter McDonald, Jr., John Monnich, Roy R. Newhouse, New Alexandria; Frank C. Hout, Crabtree; William Rohland, Superior; Elmer L. Mitchell, Ligonier; William Lilley, Hannastown.

THIRD DISTRICT

ARMSTRONG, BEAVER, BUTLER, CLARION, LAWRENCE AND MERCER COUNTIES

Mercer, Pa., February 25, 1914.

Hon. James E. Roderick, Chief of Department of Mines:

Sir: In compliance with the Act of Assembly of June 9, 1911, I herewith submit my annual report of the Third Bituminous District for the year ending December 31, 1913.

There was a decrease of three in the number of fatal accidents as compared with 1912, while the coal production increased 356,016 tons.

It was one of the most prosperous years in the history of the industry, with prices for the product reasonably good. No labor conflicts occurred during the year. Eleven of the smaller mines were idle.

Respectfully submitted,

THOMAS K. ADAMS, Inspector.

SUMMARY OF STATISTICS

Number of mines,	74
Number of mines in operation,	63
Number of tons of coal shipped to market,	3,748,050
Number of tons used at mines for steam and heat,	194,586
Number of tons sold to local trade and used by employes,	27,645
Number of tons used in the manufacture of coke,	....
Number of tons of coal produced,	3,970,281
Number of tons of coke produced,	....
Number of coke ovens,	....
Number of coke ovens in operation,	....
Number of tons of coal produced by pick mining,	1,674,871
Number of tons produced by compressed air machines,	1,005,559
Number of tons produced by electrical machines,	1,289,851
Number of persons employed inside of mines,	5,110
Number of persons employed outside, including coke workers,	706
Number of persons employed at manufacture of coke,	....
Number of fatal accidents inside of mines,	8
Number of fatal accidents outside,	....
Number of non-fatal accidents inside of mines,	46
Number of non-fatal accidents outside,	5
Number of tons of coal produced per fatal accident inside,	496,285
Number of tons produced per fatal accident outside,	....
Number of tons produced per fatal accident inside and outside,	496,285
Number of persons employed per fatal accident inside,	639
Number of persons employed per fatal accident outside,	....
Number of persons employed per fatal accident inside and outside,	639
Number of persons employed per non-fatal accident inside,	111
Number of persons employed per non-fatal accident outside,	141
Number of persons employed per non-fatal accident inside and outside,	114
Number of wives made widows,	3
Number of children made orphans,	5
Number of steam locomotives used inside of mines,	2
Number of steam locomotives used outside,	....
Number of compressed air locomotives used inside,	....
Number of compressed air locomotives used outside,	....
Number of electric motors used inside,	51
Number of electric motors used outside,	....
Number of gasoline locomotives used inside,	....
Number of fans in use,	53
Number of furnaces in use,	8
Number of gaseous mines in operation,	2
Number of non-gaseous mines in operation,	61
Number of new mines opened,	2
Number of old mines abandoned,	....

TABLE A

PRODUCTION OF COAL

Names of Operators	Tons
Allegheny River Mining Company,	405,851
Acme Gas Coal Company,	380,822
Sharon Coal and Limestone Company,	350,289
Mercer Iron and Coal Company,	202,439
Keystone Mining Company,	188,188
Erie Coal and Coke Company,	153,275
Samuel Sherwin,	141,417
North Penn Coal Company,	137,330
State Line Coal Company,	127,520
Butts Cannel Coal Company,	109,636
Lochrie Brothers Coal Company,	98,000
Monterey Coal Company,	92,157
Pardoe Coal Company,	92,064
Westerman-Filer Company,	90,874
Widnoon Coal Mining Company,	89,672
Clarion Coal Mining Company,	89,431
F. A. Mizener,	82,048
H. K. Wick and Company, Incorporated,	76,091
Chestnut Ridge Coal Mining Company,	71,880
H. K. Wick and Company (Formerly Eagle Coal Company),	71,088
Hedstrom Coal Mining Company,	67,502
Mutual Coal Mining Company,	65,302
Monarch Coal Company,	56,200
Leesburg Coal Company,	56,130
Grove Coal Company,	54,581
Frank Williams and Company (Formerly Hillville Coal Company),	49,423
J. V. Morris,	47,505
Raridan and East Brady Coal Company,	46,998
Rochester and Pittsburgh Coal and Iron Company,	46,793
Nellie Coal Company,	46,191
Cunningham Coal Company,	45,505
Shenango Coal Company,	44,529
Kittanning Plate Glass Company,	43,358
S. J. Mountz,	38,000
Vogeley Coal Company,	33,365
Francis Coal Company,	33,000
Grove City Coal Mining Company,	28,861
Standard Coal Mining Company,	18,736
Oakes Brothers Coal Company,	14,818
North Pittsburgh Realty Company,	14,809
J. H. McCurdy and Son,	14,351
R. J. Dye and Company,	13,780
McKain Brothers,	11,108
Standard Fuel Supply Company,	8,150
Berger-Aiken Coal Company,	6,200

Dominion Coal Company (Formerly McConnell Brothers Coal Company),	5,205
Wildwood Coal Company,	5,000
Victoria Coal Company (Formerly Commonwealth Fuel Company),	4,128
Preston Coal Company,	681
Total,	3,970,281

Production by Counties

Armstrong,	728,209
Butler,	1,027,501
Beaver,	160,520
Clarion,	1,190,461
Lawrence,	87,917
Mercer,	775,673
Total,	3,970,281

TABLE B.—Fatal and non-fatal accidents inside and outside of mines; number of tons of coal produced per accident; number of persons employed; number employed per accident

Names of Operators	Fatal Accidents			Non-Fatal Accidents			Tons of coal produced per fatal accident inside	Tons of coal produced per non-fatal accident inside	Number of employes inside	Number of employes outside	Total number of employes	Number of employes inside per fatal accident	Number of employes outside per fatal accident	Number of employes inside per non-fatal accident	Number of employes outside per non-fatal accident
	Inside	Outside	Total	Inside	Outside	Total									
Allegheny River Mining Co.,	2	......	2	14	1	15	202,926	28,989	539	70	609	270	....	39	70
Acme Gas Coal Co.,	......	......	......	6	......	6	....	63,470	374	47	421	....	....	62	....
Sharon Coal and Limestone Co.,	1	......	1	4	......	4	350,289	87,572	570	63	633	570	....	143	....
Erie Coal and Coke Co.,	......	......	......	1	......	1	....	153,275	163	21	184	....	....	163	....
Samuel Sherwin,	......	......	......	2	1	3	....	70,706	125	22	147	....	....	62	22
North Penn Coal Co.,	......	......	......	4	......	4	....	34,332	273	28	301	....	....	68	....
Butts Cannel Coal Co.,	......	......	......	1	......	1	....	109,636	121	13	134	....	....	121	....
Lochrie Brothers Coal Co.,	......	......	......	......	1	1	....	....	87	10	97	....	....	....	10
Pardoe Coal Co.,	......	......	......	2	......	2	....	46,032	142	17	159	....	....	72	....
Westerman-Filer Co.,	......	......	......	5	......	5	....	18,175	134	13	147	....	....	27	....
Clarion Coal Mining Co.,	1	......	1	......	......	......	89,431	....	73	16	89	73	....	....	....
F. A. Mizener,	1	......	1	1	......	1	82,048	82,048	107	9	116	107	....	107	....
H. K. Wick and Co., Inc.,	......	......	......	1	......	1	....	76,091	102	15	117	....	....	102	....
H. K. Wick and Co.,	......	......	......	1	......	1	....	71,088	111	15	126	....	....	111	....
Hedstrom Coal Mining Co.,	......	......	......	1	1	2	....	67,502	72	20	92	....	....	72	20
Mutual Coal Mining Co.,	......	......	......	1	......	1	....	65,302	86	11	97	....	....	86	....
Grove Coal Co.,	......	......	......	1	......	1	....	54,581	40	8	48	....	....	40	....
Frank Williams and Co.,	1	......	1	......	......	......	49,423	....	82	18	100	82	....	....	....
Francis Coal Co.,	2	......	2	......	......	......	16,500	....	36	4	40	18	....	....	....
R. J. Dye and Co.,	......	......	......	1	......	1	....	13,780	28	4	32	....	....	28	....
Dominion Coal Co.,	......	......	......	......	1	1	....	....	31	5	36	....	....	....	5
Miscellaneous Companies,	......	......	......	......	......	......	....	....	1,814	277	2,091	....	....	....	....
Totals and averages for district,	8	......	8	46	5	51	496,285	86,310	5,110	706	5,816	639	....	111	141

TABLE C.—Classification of Fatal Accidents Inside and Outside of Mines

	Months													
	January	February	March	April	May	June	July	August	September	October	November	December	Totals	Percentages
Causes of Accidents Inside														
Falls of coal, ...	....	....	....	....	....	....	....	....	....	1	....	....	1	12.50
Falls of roof, ...	....	....	....	1	1	1	1	1	....	....	....	....	5	62.50
Blasts, premature and otherwise, ...	....	1	....	....	....	....	....	....	....	....	....	....	1	12.50
Machinery, ...	....	1	....	....	....	....	....	....	....	....	....	....	1	12.50
Totals, ...	....	2	....	1	1	1	1	1	....	1	....	....	8	100.00
Causes of Accidents Outside (No accidents)														

TABLE D.—Classification of Non-Fatal Accidents Inside and Outside of Mines

	Months													
	January	February	March	April	May	June	July	August	September	October	November	December	Totals	Percentages
Causes of Accidents Inside														
Falls of coal, ...	....	....	....	1	....	....	....	1	1	1	1	1	6	13.04
Falls of slate, ...	1	1	1	1	....	....	....	1	1	1	....	....	7	15.22
Falls of roof, ...	....	1	....	1	2	....	3	....	1	....	2	....	10	21.74
Mine cars, ...	2	2	2	....	2	....	1	2	....	....	....	4	15	32.61
Blasts, premature and otherwise, ...	....	....	....	....	....	....	....	2	....	1	....	....	3	6.52
Machinery, ...	....	....	2	....	....	....	....	1	....	....	....	1	4	8.70
Struck by rope, ...	....	1	....	....	....	....	....	....	....	....	....	....	1	2.17
Totals, ...	3	5	5	3	4	....	4	7	3	3	3	6	46	100.00
Causes of Accidents Outside														
Cars, ...	....	....	1	1	....	1	....	....	....	....	....	....	3	60.00
By falling, ...	1	....	....	....	....	....	....	....	....	....	....	....	1	20.00
Struck by hatchet, ...	....	....	....	1	....	....	....	....	....	....	....	....	1	20.00
Totals, ...	1	....	1	2	....	1	....	....	....	....	....	....	5	100.00
Grand totals inside and outside, ...	4	5	6	5	4	1	4	7	3	3	3	6	51	......

TABLE E.—Occupations of Persons Killed or Fatally Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
Inside													
Mine foreman,	....	....	....	1	....	....	....	....	....	....	....	....	1
Miners,	....	....	....	....	1	1	....	1	....	1	....	....	4
Machine scrapers,	....	1	....	....	....	....	....	....	....	....	....	....	1
Company men,	....	1	....	....	....	....	1	....	....	....	....	....	2
Totals,	....	2	....	1	1	1	1	1	....	1	....	....	8
Outside (No accidents)													

TABLE F.—Occupations of Persons Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
Inside													
Miners,	1	2	1	2	3	....	3	5	2	3	2	1	25
Machine runners,	....	....	2	....	....	....	....	1	....	....	....	1	4
Machine loaders,	....	....	....	....	....	....	....	....	1	....	....	....	1
Machine scrapers,	....	....	....	....	....	....	....	....	....	....	....	2	2
Drivers and runners,	1	2	2	....	1	....	1	....	....	....	....	....	7
Doorboys and helpers,	....	....	....	....	....	....	....	....	....	....	....	1	1
Company men,	1	1	....	1	....	....	....	1	....	....	1	1	6
Totals,	3	5	5	3	4	....	4	7	3	3	3	6	46
Outside													
Miners,	....	....	1	....	....	....	....	....	....	....	....	....	1
Company men,	1	....	....	2	....	1	....	....	....	....	....	....	4
Totals,	1	....	1	2	....	1	....	....	....	....	....	....	5
Grand totals inside and outside,	4	5	6	5	4	1	4	7	3	3	3	6	51

TABLE G.—Nationality of Persons Killed or Fatally Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
American,	....	1	....	1	1	1	....	1	....	....	....	....	5
English,	....	....	....	....	....	....	1	....	....	....	....	....	1
Welsh,	....	1	....	....	....	....	....	....	....	....	....	....	1
Italian,	....	....	....	....	....	....	....	....	....	1	....	....	1
Totals,	....	2	....	1	1	1	1	1	....	1	....	....	8

TABLE H.—Nationality of Persons Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
American,	3	5	3	2	3	1	2	3	1	1	....	4	28
English,	....	....	....	....	1	....	....	1	....	....	....	....	2
Irish,	....	....	....	....	....	....	....	....	....	....	1	....	1
Polish,	....	....	....	....	....	....	....	1	....	....	....	1	2
Italian,	1	....	2	3	....	....	....	1	1	1	1	1	11
Slavonian,	....	....	....	....	....	....	2	....	....	....	....	....	2
Austrian,	....	....	1	....	....	....	....	1	1	1	1	....	5
Totals,	4	5	6	5	4	1	4	7	3	3	3	6	51

TABLE I.—Operators and mines, kind of openings, type and size of fans, size of furnaces, volume of air produced by fan or furnace per minute, number of splits of air currents and number of persons employed inside

Names of Operators and Mines	Kind of opening	Gaseous or non-gaseous	Method of ventilation	Diameter of fan in feet and inches	Width of blades in feet and inches	Depth of blades in feet and inches	Number of revolutions per minute	Water gauge developed—in inches	Name of fan	Power used	Area of furnace bars in square feet	Number of splits of air currents	Number of cubic feet of air per minute entering the mine at inlet	Total number of cubic feet of air per minute circulating in all the splits	Number of cubic feet of air per minute passing out at outlet	Number of persons employed inside
Allegheny River Mining Co.																
Chickasaw,	Drift,	Gaseous,	Fan,	8.0	6.0	......	160	2.0	Sirocco,	Electricity,	....	3	70,000	50,000	70,500	280
Furnace Run No. 1,	Drift,	Non-gas.,	Fan,	10.0	4.0	2.0	100	1.0	Jeffrey,	Electricity,	....	4	64,000	38,000	65,000	196
Furnace Run No. 2,	Drift,	Non-gas.,	Fan,	8.0	1.1	......	360	1.0	Stine,	Electricity,	....	2	62,000	31,000	65,000	64
Acme Gas Coal Co.																
Acme,	Drift,	Non-gas.,	Fan,	12.5	8.0	5.5	150	3.2	Clifford,	Steam,	....	4	44,000	44,000	45,000	249
Penn,	Drift,	Non-gas.,	Fan,	7.0	1.2	2.4	250	.5	Stine,	Electricity,	....	1	20,000	20,000	20,500	58
Shannon,	Drift,	Non-gas.,	Furnace,	......	......	......	......	.5	....	....	42	1	12,000	11,500	12,500	67
Sharon Coal and Limestone Co.																
Buhl No. 2,	Shaft,	Non-gas.,	Fan,	20.0	7.0	5.0	46	.9	Brazil,	Steam,	....	2	25,600	20,000	26,000	178
Buhl No. 3,	Drift,	Non-gas.,	Fan,	10.0	2.5	2.5	119	1.	Brazil,	Steam,	....	2	16,000	12,000	17,000	80
Buhl No. 4,	Drift,	Non-gas.,	Furnace,	......	......	......	......	.5	....	....	24	2	18,000	13,000	19,000	82
Buhl No. 5,	Shaft,	Non-gas.,	Fan,	10.0	3.0	2.7	100	1.0	Vulcan,	Steam,	....	3	44,000	41,000	45,000	235
Mercer Iron and Coal Co.																
Stoneboro No. 7,	Shaft,	Non-gas.,	Fan,	16.0	4.5	4.0	80	1.0	Brazil,	Steam,	....	3	58,000	26,000	58,500	214
Keystone Mining Co.																
Sarah Furnace No. 1,	Drift,	Non-gas.,	Fan,	16.0	4.0	2.5	78	3.5	Brazil,	Steam,	....	1	30,000	15,000	30,500	114
Sterling No. 3,	Drift,	Non-gas.,	Fan,	10.0	4.0	2.5	80	.5	Brazil,	Gas,	....	2	26,895	18,000	27,000	72
Erie Coal and Coke Co.																
Keystone No. 1,	Drift,	Non-gas.,	Fan,	12.0	2.5	1.5	100	1.0	Brazil,	Electricity,	....	2	21,000	15,000	22,000	96
Keystone No. 2,	Drift,	Non-gas.,	Fan,	10.0	2.0	1.5	100	1.0	Brazil,	Electricity,	....	1	12,000	10,000	14,000	67

TABLE I.—Continued

Names of Operators and Mines	Kind of opening	Gaseous or non-gaseous	Method of ventilation	Diameter of fan in feet and inches	Width of blades in feet and inches	Depth of blades in feet and inches	Number of revolutions per minute	Water gauge developed—in inches	Name of fan	Power used	Area of furnace bars in square feet	Number of splits of air currents	Number of cubic feet of air per minute entering the mine at inlet	Total number of cubic feet of air per minute circulating in all the splits	Number of cubic feet of air per minute passing out at outlet	Number of persons employed inside
Samuel Sherwin																
Kincaic, ...	Drift, ...	Non-gas., .	Fan, ...	8.0	2.0	3.0	190	1.0	Stine, ...	Gas, ...	....	2	21,000	15,000	22,000	83
Enterprise, ...	Drift, ...	Non-gas., .	Fan, ...	6.0	2.0	2.0	160	.5	Buffalo, ...	Steam, ...	....	2	15,000	10,000	16,000	42
North Penn Coal Co.																
Kaylor, ...	Slope, ...	Gaseous, ..	Fan, ...	12.0	4.8	3.0	154	1.2	Capell, ...	Steam, ...	....	5	59,350	46,875	60,000	127
Pine Run, ...	Drift, ...	Non-gas., .	Fan, ...	8.0	4.0	3.0	200	1.0	Capell, ...	Electricity, .	....	5	48,000	38,000	50,000	174
State Line Coal Co.																
State Line, ...	Drift, ...	Non-gas., .	Fan, ...	14.0	4.0	4.0	100	1.0	Brazil, ...	Steam, ...	....	3	45,000	38,000	48,000	195
Butts Cannel Coal Co.																
Annandale No. 1, ...	Drift, ...	Non-gas., .	Fan, ...	8.0	2.0	2.3	140	.6	Brazil, ...	Electricity, .	....	1	20,000	12,000	21,000	35
Annandale No. 2, ...	Drift, ...	Non-gas., .	Fan, ...	12.0	3.3	3.3	150	2.0	Brazil, ...	Electricity, .	....	2	30,000	25,000	31,000	86
Lochrie Brothers Coal Co.																
Pennsylvania No. 1, ...	Drift, ...	Non-gas., .	Fan, ...	10.5	3.0	2.8	100	1.0	Brazil, ...	Steam, ...	....	1	21,000	15,000	22,000	87
Monterey Coal Co.																
Monterey, ...	Drift, ...	Non-gas., .	Fan, ...	12.0	4.0	3.0	90	.5	Brazil, ...	Steam, ...	....	2	22,000	15,000	24,000	92
Pardoe Coal Co.																
Pardoe, ...	Drift, ...	Non-gas., .	Fan, ...	10.0	3.5	2.5	125	.75	Brazil, ...	Steam, ...	....	2	24,000	18,000	24,000	99
Kee, ...	Drift, ...	Non-gas., .	Fan, ...	10.0	3.5	2.5	90	.4	Brazil, ...	Steam, ...	....	1	16,000	12,000	17,000	43
Westerman-Filer Co.																
Diamond No. 3, ...	Slope, ...	Non-gas., .	Fan, ...	14.0	4.0	3.0	86	1.0	Brazil, ...	Steam, ...	....	3	42,000	36,000	42,500	184
Widnoon Coal Mining Co.																
Widnoon, ...	Drift, ...	Non-gas., .	Fan, ...	7.0	4.0	3.0	250	2.0	Capell, ...	Steam, ...	....	2	26,000	15,000	27,000	107

Clarion Coal Mining Co. Clarion,	Drift,	Non-gas.,	Fan,	12.0	4.0	3.0	80	1.5	Pollock,	Steam,	....	2	18,000	17,500	18,500	73
F. A. Mizener Grant,	Drift,	Non-gas.,	Fan,	12.0	4.0	3.0	95	1.0	Brazil,	Steam,	....	2	25,000	19,200	27,000	107
H. K. Wick and Co., Inc. Glenora,	Drift,	Non-gas.,	Fan,	4.0	5.0	1.5	290	.5	Robinson,	Electricity,	....	2	35,000	20,000	35,500	102
Chestnut Ridge Coal Mining Co. Chestnut Ridge,	Drift,	Non-gas.,	Fan,	12.0	4.0	3.0	90	1.0	Brazil,	Steam,	....	1	17,000	10,000	18,000	78
H. K. Wick and Co. Eagle No. 4,	Drift,	Non-gas.,	Fan,	10.0	3.5	3.5	105	1.0	Brazil,	Steam,	....	1	24,000	15,000	24,500	70
Eagle No. 5,	Drift,	Non-gas.,	Fan,	10.0	2.7	2.9	80	.5	Brazil,	Steam,	....	1	15,000	10,000	15,500	41
Hedstrom Coal Mining Co. Dutch Hill,	Drift,	Non-gas.,	Fan,	12.0	3.0	3.0	90	1.0	Brazil,	Steam,	....	1	24,300	15,000	25,000	72
Mutual Coal Mining Co. Royle,	Drift,	Non-gas.,	Fan,	14.0	4.0	4.0	54	1.0	Brazil,	Steam,	....	1	28,000	27,000	29,000	86
Monarch Coal Co. Monarch,	Drift,	Non-gas.,	Fan.	16.0	5.0	4.5	60	1.0	Brazil,	Steam,	....	2	24,000	15,000	25,000	70
Leesburg Coal Co. Leesburg,	Slope,	Non-gas.,	Fan,	8.0	3.0	4.0	75	1.0	Cole,	Steam,	....	1	15,000	10,000	16,000	74
Grove Coal Co. Enterprise,	Shaft,	Non-gas.,	Fan,	12.0	3.8	3.4	65	.7	Brazil,	Steam,	....	1	20,000	16,500	21,000	40
Frank Williams and Co. Hillville,	Drift,	Non-gas.,	Fan.	10.0	3.0	3.0	120	.5	Brazil,	Steam,	....	1	13,000	12,000	14,000	82
J. V. Morris Claytonia,	Drift,	Non-gas.,	Furnace,	......	......	......	......	......	....	....	24	1	10,000	8,500	11,500	53
Raridan and East Brady Coal Co. East Brady,	Drift,	Non-gas.,	Fan,	8.0	3.0	3.0	175	.5	Stine,	Steam,	....	1	9,000	8,000	9,300	56
Rochester and Pittsburgh Coal and Iron Co. Cowan No. 4,	Slope,	Non-gas.,	Fan,	6.0	2.0	2.5	300	.5	Clark,	Steam,	....	2	12,800	12,800	14,500	66
Nellie Coal Co. Nellie,	Slope,	Non-gas.,	Fan,	10.0	3.0	3.0	60	.5	Brazil,	Steam,	....	2	14,000	10,000	14,400	75
Cunningham Coal Co. Chicora,	Drift,	Non-gas.,	Fan,	10.0	4.0	3.0	80	.5	Brazil,	Gas,	....	2	22,000	22,000	23,000	58
Shenango Coal Co. Shenango,	Shaft,	Non-gas.,	Fan.	12.0	3.7	3.2	87	1.5	Brazil.	Steam,	....	2	25,000	19,000	25,500	72

TABLE I.—Continued

Names of Operators and Mines	Kind of opening	Gaseous or non-gaseous	Method of ventilation	Diameter of fan in feet and inches	Width of blades in feet and inches	Depth of blades in feet and inches	Number of revolutions per minute	Water gauge developed—in inches	Name of fan	Power used	Area of furnace bars in square feet	Number of splits of air currents	Number of cubic feet of air per minute entering the mine at inlet	Total number of cubic feet of air per minute circulating in all the splits	Number of cubic feet of air per minute passing out at outlet	Number of persons employed inside
Kittanning Plate Glass Co. Kittanning P. G., ...	Drift, ...	Non-gas., .	Fan, ...	6.0	2.0	2.0	140	.4	Blackmore, ..	Electricity,.	....	2	11,200	8,000	11,500	37
S. J. Mounts S-106, ...	Drift, ...	Non-gas., .	Fan, ...	8.0	3.5	3.0	90	.5	Stine, ...	Gas, ...	....	1	22,500	15.000	23,200	57
Vogeley Coal Co. Vogeley, ...	Drift, ...	Non-gas., .	Fan, ...	5.0	2.0	2.0	170	.2	Stine, ...	Gas, ...	....	1	11,200	11,200	11,230	45
Francis Coal Co. Duff, ...	Drift, ...	Non-gas., .	Fan, ...	12.0	4.0	3.0	70	.5	Brazil, ...	Steam, ...	....	1	7,800	7,800	8,000	36
Grove City Coal Mining Co. New Hope, ...	Shaft, ...	Non-gas., .	Fan, ...	10.0	3.0	3.0	108	1.0	Brazil, ...	Steam, ...	....	2	14,000	11,500	15,000	46
Standard Coal Mining Co. Standard, ...	Drift, ...	Non-gas., .	Furnace, ..	......	......	......	......	......	....	....	35	1	10,000	8,000	10,500	20
Oakes Brothers Coal Co. Oakes, ...	Shaft, ...	Non-gas., .	Fan, ...	10.0	3.0	3.0	70	.5	Cole, ...	Steam, ...	....	1	9,000	6,000	10,000	30
North Pittsburgh Realty Co. Harmony Junction, ...	Shaft, ...	Non-gas., .	Fan.	6.0	1.5	1.5	180	.4	Stine, ...	Gas, ...	....	1	13,500	8,000	14,000	20
J. H. McCurdy and Son McCurdy, ...	Slope, ...	Non-gas., .	Fan, ...	6.0	2.3	2.3	106	.4	Stine, ...	Steam, ...	....	1	10,000	10,900	10,800	29
R. J. Dye and Co. Dye, ...	Slope, ...	Non-gas., .	Furnace, ..	......	......	......	......	......	....	....	16	1	8,000	4,000	8,500	28

McKain Brothers McKain, ...	Drift, ...	Non-gas., .	Furnace, ..	......	......	......	......	......	....	....	12	1	5,000	4,000	5,500	15
Standard Fuel Supply Co. Brewster No. 2, ...	Drift, ...	Non-gas., .	Fan, ...	10.0	2.5	2.5	125	.5	Brazil, ...	Steam, ...	....	1	20,000	20,000	20,100	35
Berger-Aiken Coal Co. Bethel, ...	Shaft, ...	Non-gas., .	Ex-steam, .	......	......	......	......	.4	....	....	....	1	3,500	3,500	4,500	29
Dominion Coal Co. Dominion, ...	Drift, ...	Non-gas., .	Furnace, ..	......	......	......	......	......	....	....	20	1	6,000	4,000	7,000	31
Wildwood Coal Co. Wildwood, ...	Drift, ...	Non-gas., .	Natural, ..	......	......	......	......	......	....	....	....	1	3,500	3,500	3,600	17
Victoria Coal Co. Victoria, ...	Drift, ...	Non-gas., .	Fan, ...	6.0	2.8	1.5	100	.4	Buffalo, ...	Steam, ...	....	1	10,000	8,000	10,500	29
Preston Coal Co. Preston,*	Drift, ...	Non-gas., .	Furnace, ..	......	......	......	......	......	....	....	12	1	5,000	5,000	5,500	30

*Air measurements approximated.

TABLE J.—Mines using coal cutting machines, power used, geological and local names of seams, thickest and thinnest seams where machines are used, and the approximate number of tons produced by machines

Names of Operators	Names of Mines	Kind of opening	Gaseous of non-gaseous	Number of mining machines used	Power used by machines	Geological and local names of seams	Average thickness in inches	Height of Seam in Inches		Approximate number of tons produced by machines
								Thickest	Thinnest	
Allegheny River Mining Co., ...	Chickasaw, ...	Drift, ...	Gaseous, ..	10	Electricity, ...	B, or Lower Kittanning.	45	54	36	308,161
	Furnace Run No. 1, ...	Drift, ...	Non-gas., .	10	Electricity, ...	B, or Lower Kittanning.	43	50	36	90,000
	Furnace Run No. 2, ...	Drift, ...	Non-gas., .	2	Electricity, ...	E, or Upper Freeport.	36	36	36	7,690
Totals, ...	....	....	....	22	....	....	......	......	......	405,851
Acme Gas Coal Co., ...	Acme, ...	Drift, ...	Non-gas., .	12	Electricity, ...	B, or Lower Kittanning.	43	50	36	250,000
	Penn, ...	Drift, ...	Non-gas., .	2	Electricity, ...	B, or Lower Kittanning.	42	48	36	35,000
Totals, ...	....	....	....	14	....	....	......	......	......	285,000
Sharon Coal and Limestone Co.	Buhl No. 2, ...	Shaft, ...	Non-gas., .	6	Compressed air, .	A, or Brookville.	39	42	36	15,000
	Buhl No. 5, ...	Shaft, ...	Non-gas., .	8	Compressed air, .	A, or Brookville.	43	48	43	25,000
Totals, ...	....	....	....	14	....	....	......	......	......	40,000
Mercer Iron and Coal Co., ...	Stoneboro No. 7, ...	Shaft, ...	Non-gas., .	6	Electricity, ...	A, or Brookville.	54	54	54	125,000

Keystone Mining Co.,	Sarah Furnace No. 1,	Drift,	Non-gas.,	3	Electricity,	B, or Lower Kittanning.	40	44	36	80,000
	Sterling No. 3,	Drift,	Non-gas.,	3	Electricity,	B, or Lower Kittanning.	44	44	44	59,000
Totals,				6						139,000
Erie Coal and Coke Co.,	Keystone No. 1,	Drift,	Non-gas.,	2	Electricity,	A, or Brookville.	48	48	48	20,000
	Keystone No. 2,	Drift,	Non-gas.,	6	Compressed air,	A, or Brookville.	63	66	60	50,000
Totals,				8						70,000
Samuel Sherwin,	Kincaid,	Drift,	Non-gas.,	6	Compressed air,	E, or Upper Freeport.	46	48	44	100,000
	Enterprise,	Drift,	Non-gas.,	4	Compressed air,	E, or Upper Freeport.	57	60	54	30,000
Totals,				10						130,000
North Penn Coal Co.,	Kaylor,	Slope,	Gaseous,	11	Electricity,	B, or Lower Kittanning.	38	40	36	15,000
	Pine Run,	Drift,	Non-gas.,	15	Electricity,	B, or Lower Kittanning.	42	44	40	100,000
Totals,				26						115,000
Butts Cannel Coal Co.,	Annandale No. 1,	Drift,	Non-gas.,	1	Electricity,	A, or Brookville.	35	40	30	5,000
	Annandale No. 2,	Drift,	Non-gas.,	5	Electricity,	C, or Upper Kittanning.	62	64	60	85,000
Totals,				6						90,000
Lochrie Brothers Coal Co.,	Pennsylvania No. 1,	Drift,	Non-gas.,	9	Compressed air,	A, or Brookville.	44	48	40	90,000
Monterey Coal Co.,	Monterey,	Drift,	Non-gas.,	11	Compressed air,	A, or Brookville.	36	36	36	92,157
Widnoon Coal Mining Co.,	Widnoon,	Drift,	Non-gas.,	10	Compressed air,	B, or Lower Kittanning.	50	60	40	80,000

TABLE J.—Continued

Names of Operators	Names of Mines	Kind of opening	Gaseous of non-gaseous	Number of mining machines used	Power used by machines	Geological and local names of seams	Average thickness in inches	Height of Seam in Inches		Approximate number of tons produced by machines
								Thickest	Thinnest	
Clarion Coal Mining Co., ...	Clarion, ...	Drift, ...	Non-gas., .	6	Compressed air, .	B, or Lower Kittanning.	42	48	36	75,000
H. K. Wick and Co., Inc., ...	Glenora, ...	Drift, ...	Non-gas., .	4	Electricity, ...	B, or Lower Kittanning.	43	46	40	55,000
Chestnut Ridge Coal Mining Co., ..	Chestnut Ridge, ...	Drift, ...	Non-gas., .	6	Compressed air, .	B, or Lower Kittanning.	42	48	36	70,000
H. K. Wick and Co., ...	Eagle No. 4, ...	Drift, ...	Non-gas., .	5	Compressed air, .	B, or Lower Kittanning.	41	42	40	35,000
Hedstrom Coal Mining Co., ...	Dutch Hill, ...	Drift, ...	Non-gas., .	8	Compressed air, .	B, or Lower Kittanning.	36	36	36	67,502
Mutual Coal Mining Co., ...	Royle, ...	Drift, ...	Non-gas., .	7	Compressed air, .	A, or Brookville.	42	44	40	60,000
Monarch Coal Co., ...	Monarch, ...	Drift, ...	Non-gas., .	7	Compressed air, .	B, or Lower Kittanning.	43	48	36	56,000
Frank Williams and Co., ...	Hillville, ...	Drift, ...	Non-gas., .	7	Compressed air, .	B, or Lower Kittanning.	36	36	36	45,000

J. V. Morris,	Claytonia,	Drift,	Non-gas.,	4	Compressed air,	C, or Upper Kittanning.	36	36	36	12,000
Raridan and East Brady Coal Co.,	East Brady,	Drift,	Non-gas.,	3	Compressed air,	B, or Lower Kittanning.	39	40	38	26,900
Rochester and Pittsburgh Coal and Iron Co.,	Cowan No. 4,	Slope,	Non-gas.,	4	Compressed air,	E, or Upper Freeport.	46	48	44	35,000
Nellie Coal Co.,	Nellie,	Slope,	Non-gas.,	4	Compressed air,	A, or Brookville.	42	44	40	20,000
Shenango Coal Co.,	Shenango,	Shaft,	Non-gas.,	3	Compressed air,	A, or Brookville.	42	44	40	25,000
Kittanning Plate Glass Co.,	Kittanning P. G.,	Drift,	Non-gas.,	2	Electricity,	E, or Upper Freeport.	54	60	48	25,000
Francis Coal Co.,	Duff,	Drift,	Non-gas.,	2	Electricity,	E, or Upper Freeport.	36	36	36	30,000
Oakes Brothers Coal Co.,	Oakes,	Shaft,	Non-gas.,	1	Compressed air,	A, or Brookville.	38	40	36	2,000
Victoria Coal Co.,	Victoria,	Drift,	Non-gas.,	2	Compressed air,	E, or Upper Freeport.	36	36	36	3,500
Preston Coal Co.,	Preston,	Drift,	Non-gas.,	3	Compressed air,	B, or Lower Kittanning.	36	36	36	500
Grand totals,				225						2,295,410

TABLE 1.—Operators, Location of Mines, Railroads, etc.

Name of Operators and Mines	County	Name of General Superintendent	Post Office	Name of Superintendent	Post Office	Railroad to Mine
Allegheny River Mining Co. Chickasaw, Furnace Run Nos. 1* and 2,*	Armstrong,	Dwight C. Morgan,	Kittanning,	Thomas Hall, L. O. Mellinger,	Chickasaw, Furnace Run,	P. S. and N.
Acme Gas Coal Co. Acme, Penn, Shannon,	Clarion,	L. B. Lewis,	Rimersburg,	William G. Strachan,	Rimersburg,	B. and A. V. Div. of Penna.
Sharon Coal and Limestone Co. Buhl No. 2, Buhl Nos. 3 and 4, Buhl No. 5,	Lawrence, Butler, Mercer,	F. P. Filer,	Mercer,	John Marshall,	Volant,	Wolf Creek Branch of Penna.
Mercer Iron and Coal Co. Stoneboro No. 7,	Mercer,	Robert P. Cann,	Stoneboro,	L. J. Cann,	Stoneboro,	L. S. and M. S.
Keystone Mining Co. Sarah Furnace No. 1, Sterling No. 3,	Clarion,	George E. Henry,	East Brady,	Peter Henry,	East Brady,	B. and A. V. Div. of Penna.
Erie Coal and Coke Co. Keystone Nos. 1 and 2,	Butler,	Levi Deal,	Ferris,			B. and L. E.
Samuel Sherwin Kincaid, Enterprise,	Butler,			Samuel Sherwin,	Karns City,	Western Allegheny, B. and O.
North Penn Coal Co. Kaylor, Pine Run,	Armstrong,	J. G. Welson,	Kaylor,	H. L. Stewart,	Kaylor,	Western Allegheny
State Line Coal Co. State Line,	Beaver,	A. P. Mullins,	Salem, Ohio,	Hugh Laughlin,	East Palestine, O.,	Penna. Lines West
Butts Cannel Coal Co. Annandale Nos. 1 and 2,	Butler,			J. A. Gould,	Deegan,	B. and L. E.
Lochrie Brothers Coal Co. Pennsylvania No. 1,	Butler,	Thomas Lochrie,	Windber,	Thomas Boyd,	Argentine,	B. and L. E.

*New mine.

Monterey Coal Co. Monterey,	Clarion,	L. W. Hicks,	Leesburg,	A. J. Watson,	West Monterey,	B. and A. V. Div. of Penna.
Pardoe Coal Co. Pardoe, Kee,	Mercer,	F. P. Filer,	Mercer,	E. W. Filer,	Mercer,	B. and L. E.
Westerman-Filer Co. Diamond No. 3,	Mercer,	F. P. Filer,	Mercer,	H. B. Filer,	Grove City,	B. and L. E.
Widnoon Coal Mining Co. Widnoon,	Armstrong,	J. D. Cobbett,	Lawsonham,	J. D. Cobbett,	Lawsonham,	B. and A. V. Div. of Penna.
Clarion Coal Mining Co. Clarion,	Clarion,	George Scott,	Philipsburg,	H. B. Scott,	Philipsburg,	B. and A. V. Div. of Penna.
F. A. Mizener Grant,	Butler,					B. and L. E.
H. K. Wick and Co., Inc. Glenora,	Clarion,	H. H. Moody,	Catfish,	H. H. Moody,	Catfish,	B. and A. V. Div. of Penna.
Chestnut Ridge Coal Mining Co. Chestnut Ridge,	Clarion,	M. A. Lehner,	Rimersburg,	M. A. Lehner,	Rimersburg,	B. and A. V. Div. of Penna.
H. K. Wick and Co. (formerly Eagle Coal Co.) Eagle Nos. 4 and 5,	Clarion,	W. D. Ward,	Buffalo, N. Y.,	H. H. Moody,	East Brady,	B. and A. V. Div. of Penna.
Hedstrom Coal Mining Co. Dutch Hill,	Clarion,	E. C. Roberts,	Buffalo, N. Y.,	Thomas Bolan,	Parkers Landing,	B. and A. V. Div. of Penna.
Mutual Coal Mining Co. Royle,	Butler,	Harry Hamilton,	Grove City,	John C. Hamilton,	Argentine,	B. and L. E.
Monarch Coal Co. Monarch,	Clarion,	C. P. McCafferty,	East Brady,	C. P. McCafferty,	East Brady,	B. and A. V. Div. of Penna.
Leesburg Coal Co. Leesburg,	Mercer,	J. A. Gealey,	New Castle,	M. F. Crawford,	Volant,	Wolf Creek Branch of Penna.
Grove Coal Co. Enterprise,	Mercer,	J. V. Morris,	Cleveland, Ohio,	P. E. Morris,	Grove City,	B. and L. E.
Frank Williams and Co. (formerly Hillville Coal Co. Hillville,	Clarion,	Henry Williams,	Oak Ridge,	Henry Williams,	Oak Ridge,	B. and A. V. Div. of Penna.
J. V. Morris Claytonia,	Butler,	J. V. Morris,	Cleveland, Ohio,	Phil E. Morris,	Grove City,	B. and L. E.

TABLE 1.—Continued

Name of Operators and Mines	County	Name of General Superintendent	Post Office	Name of Superintendent	Post Office	Railroad to Mine
Raridan and East Brady Coal Co. East Brady,	Clarion,	J. H. Thompson,	Pittsburgh,	W. G. Christy,	East Brady,	B. and A. V. Div. of Penna.
Rochester and Pittsburgh Coal and Iron Co. Cowan No. 4,	Armstrong,	I. J. Harvey,	Helvetia,	Gust Wennerstine,	Cowansville,	B. R. and P.
Nellie Coal Co. Nellie,	Butler,	W. D. Ward,	Buffalo, N. Y.,			B. and L. E.
Cunningham Coal Co. Chicora,	Butler,	George H. Fox,	Chicora,	George H. Fox,	Chicora,	B. and O.
Shenango Coal Co. Shenango,	Mercer,	C. H. Johnson,	New Castle,	J. W. Dinsmore,	New Castle,	B. and L. E.
Kittanning Plate Glass Co. Kittanning P. G.,	Armstrong,	W. M. Heilman,	Kittanning,	John Benson,	Kittanning,	Local
S. J. Mounts S—106,	Butler,	Fred Jeffries,	Boyers,			B. and L. E.
Vogeley Coal Co. Vogeley,	Butler,	Theodore Vogeley,	Butler,	Harry Gould,	Butler,	Pennsylvania
Francis Coal Co. Duff,	Beaver,	Thomas G. Francis,	East Palestine, O.,	Thomas G. Francis,	East Palestine, O.,	P. L. and W.
Grove City Coal Mining Co. New Hope,	Mercer,	W. A. Milner,	Jackson Center,	N. A. Milner,	Jackson Center,	New Castle Branch of Penna.
Standard Coal Mining Co. Standard,	Butler,	Harry Hamilton,	Grove City,	John C. Hamilton,	Argentine,	B. and L. E.
Oakes Brothers Coal Co. Oakes,	Mercer,	W. C. Oakes,	Volant,	W. H. Oakes,	Volant,	Wolf Creek Branch of Penna.
North Pittsburgh Realty Co. Harmony Junction,	Butler,	E. J. O'Brian,	New Castle,	James Rigby,	Eidenau,	Local

J. H. McCurdy and Son McCurdy,	Mercer,	James W. McCurdy,	Jackson Center,	James W. McCurdy,	Jackson Center,	New Castle Branch of Penna.
R. J. Dye and Co. Dye,	Mercer,	B. A. Dye,	Jackson Center,			New Castle Branch of Penna.
McKain Brothers McKain,	Butler,	I. P. McKain,	Hilliards,	I. P. McKain,	Hilliards,	B. and L. E.
Standard Fuel Supply Co. Brewster No. 2,	Butler,	A. M. Lowe,	Pittsburgh,	James Robertson,	Evans City,	B. and O.
Berger-Aiken Coal Co. Bethel,	Mercer,	Alex. McLean,	West Middlesex,	Alex. McLean,	West Middlesex,	Sharpsville
Dominion Coal Co. (formerly McConnell Brothers Coal Co.) Dominion,	Armstrong,	R. C. McLean,	Logansport,			B. and A. V. Div. of Penna.
Wildwood Coal Co. Wildwood,	Butler,	J. P. Anderson,	Butler,	S. Smith,	Boyers,	B. and L. E.
Victoria Coal Co. (formerly Commonwealth Fuel Co.) Victoria,	Butler,	Fred Stover,	Grove City,			B. and L. E.
Preston Coal Co. Preston,	Clarion,	H. K. Knopf,	Pittsburgh,	W. H. Whitley,	West Monterey,	B. and A. V. Div. of Penna.

TABLE 2.—Number of tons of coal mined and tons of coke produced, number of days worked, number of persons employed, number killed and injured, quantity of powder, dynamite and permissible explosives used, etc.

Names of Operators and Mines	County	Number of tons of coal shipped to market	Number of tons used at mines for steam and heat	Number of tons sold to local trade and used by employes	Number of tons used in manufacture of coke	Total production of coal in tons	Total production of coke in tons	Number of coke ovens	Number of days worked	Number of employes	Number of fatal accidents	Number of non-fatal accidents	Explosives			Number of horses and mules
													Number of pounds of powder used	Number of pounds of dynamite used	Number of pounds of permissible explosives used	
Allegheny River Mining Co.																
Chickasaw,	Armstrong,	304,561	3,600	....	....	308,161	....	......	270	310	2	9	20,000	1,000	....	......
Furnace Run No. 1,	Armstrong,	92,675	1,845	3,170	....	97,690	....	......	189	227	....	3	....	....	....	......
Furnace Run No. 2,	Armstrong,	....	....	....	....	....	....	......	73	72	....	3	....	....	....	2
Totals,	....	397,236	5,445	3,170	....	405,851	....	......	......	609	2	15	20,000	1,000	....	2
Acme Gas Coal Co.																
Acme,	Clarion,	258,119	3,592	448	....	262,159	....	......	289	281	....	5	65,532	....	....	20
Penn,	Clarion,	57,828	822	....	....	58,650	....	......	290	65	....	1	1,462	....	....	5
Shannon,	Clarion,	59,960	....	58	....	60,018	....	......	292	75	....	....	1,502	....	....	7
Totals,	....	375,907	4,414	501	....	380,822	....	......	......	421	....	6	68,496	....	....	32
Sharon Coal and Limestone Co.																
Buhl No. 2,	Lawrence,	73,702	13,104	1,111	....	87,917	....	......	275	199	....	1	33,225	1,800	....	16
Buhl No. 3,	Butler,	49,785	974	761	....	51,520	....	......	264	91	....	1	100	300	....	7
Buhl No. 4,	Butler,	52,994	490	322	....	53,806	....	......	284	87	....	1	150	400	....	8
Buhl No. 5,	Mercer,	144,921	11,461	664	....	157,046	....	......	296	256	1	1	50,000	1,800	....	17
Totals,	....	321,402	26,029	2,858	....	350,289	....	......	......	633	1	4	83,475	4,300	....	48
Mercer Iron and Coal Co.																
Stoneboro No. 7,	Mercer,	187,919	13,434	1,086	....	202,439	....	......	254	260	....	....	36,500	2,200	....	24

Keystone Mining Co.																
Sarah Furnace No. 1,	Clarion,	86,995	2,050	36	......	89,081	......	......	279	128	....	....	25,500	100	......	7
Sterling No. 3,	Clarion,	99,107	......	......	......	99,107	......	......	273	86	....	....	38,700	100	......	8
Totals,	......	186,102	2,050	36	......	188,188	......	......	......	214	....	....	64,200	200	......	15
Erie Coal and Coke Co.																
Keystone No. 1,	Butler,	91,800	1,800	500	......	94,100	......	......	256	108	....	....	10,000	500	......	4
Keystone No. 2,	Butler,	56,075	3,000	100	......	59,175	......	......	242	76	....	1	5,000	......	......	4
Totals,	......	147,875	4,800	600	......	153,275	......	......	......	184	....	1	15,000	500	......	8
Samuel Sherwin																
Kincaid,	Butler,	96,365	3,491	796	......	100,652	......	......	282	98	....	1	12,700	......	......	11
Enterprise,	Butler,	39,420	926	419	......	40,765	......	......	282	49	....	2	7,300	......	......	3
Totals,	......	135,785	4,417	1,215	......	141,417	......	......	......	147	....	3	20,000	......	......	14
North Penn Coal Co.																
Kaylor,	Armstrong,	10,569	2,883	4,989	......	18,441	......	......	121	127	....	....	8,170	900	......	14
Pine Run,	Armstrong,	117,072	1,655	162	......	118,889	......	......	231	174	....	4	......	......	......	16
Totals,	......	127,641	4,538	5,151	......	137,330	......	......	......	301	....	4	8,170	900	......	30
State Line Coal Co.																
State Line,	Beaver,	125,177	2,343	......	......	127,520	......	......	294	195	....	....	43,061	......	......	12
Butts Cannel Coal Co.																
Annandale No. 1,	Butler,	16,558	......	286	......	16,844	......	......	211	36	....	....	10,000	10	......	4
Annandale No. 2,	Butler,	90,081	2,478	233	......	92,792	......	......	263	98	....	1	3,000	1,000	......	8
Totals,	......	106,639	2,478	519	......	109,636	......	......	......	134	....	1	13,000	1,010	......	12
Lochrie Brothers Coal Co.																
Pennsylvania No. 1,	Butler,	94,000	3,000	1,000	......	98,000	......	......	286	97	....	1	......	......	......	6
Monterey Coal Co.																
Monterey,	Clarion,	88,677	3,410	70	......	92,157	......	......	305	109	....	....	7,500	200	......	12
Pardoe Coal Co.																
Pardoe,	Mercer,	65,837	1,531	582	......	67,950	......	......	270	112	....	1	6,456	300	......	8
Kee,	Mercer,	22,101	1,839	174	......	24,114	......	......	252	47	....	1	9,384	300	......	5
Totals,	......	87,938	3,370	756	......	92,064	......	......	......	159	....	2	15,840	600	......	13
Westerman-Filer Co.																
Diamond No. 3,	Mercer,	86,133	4,165	576	......	90,874	......	......	252	147	....	5	9,900	950	......	12
Widnoon Coal Mining Co.																
Widnoon,	Armstrong,	85,927	3,385	360	......	89,672	......	......	246	126	....	....	......	......	......	9

TABLE 2.— Continued

Names of Operators and Mines	County	Number of tons of coal shipped to market	Number of tons used at mines for steam and heat	Number of tons sold to local trade and used by employes	Number of tons used in manufacture of coke	Total production of coal in tons	Total production of coke in tons	Number of coke ovens	Number of days worked	Number of employes	Number of fatal accidents	Number of non-fatal accidents	Explosives: Number of pounds of powder used	Explosives: Number of pounds of dynamite used	Explosives: Number of pounds of permissible explosives used	Number of horses and mules
Clarion Coal Mining Co. Clarion,	Clarion,	84,689	4,450	292	....	89,431	....	......	289	89	1	....	13,125	300	....	6
F. A. Mizener Grant,	Butler,	80,137	1,687	224	....	82,048	....	......	298	116	1	1	....	6,000	....	6
H. K. Wick and Co., Inc. Glenora,	Clarion,	75,011	1,049	31	....	76,091	....	......	252	117	....	1	12,500	500	....	6
Chestnut Ridge Coal Mining Co. Chestnut Ridge,	Clarion,	70,580	1,300	....	....	71,880	....	......	280	91	....	....	....	....	....	9
H. K. Wick and Co. Eagle No. 4, Eagle No. 5,	Clarion,	68,228	2,480	380	....	71,088	....	......	269 269	84 42	....	 1	....	....	....	6 3
Totals,	....	68,228	2,480	380	....	71,088	....	......	......	126	....	1	....	....	....	9
Hedstrom Coal Mining Co. Dutch Hill,	Clarion,	63,787	3,525	190	....	67,502	....	......	247	92	....	2	3,100	175	....	8
Mutual Coal Mining Co. Boyle,	Butler,	62,609	2,693	....	....	65,302	....	......	270	97	....	1	200	....	....	18

Monarch Coal Co. Monarch,	Clarion,	53,500	2,600	100	....	56,200	....	......	240	86	....	....	....	....	....	4
Leesburg Coal Co. Leesburg,	Mercer,	54,660	1,080	390	....	56,130	....	......	241	82	....	....	35,175	4,510	....	8
Grove Coal Co. Enterprise,	Mercer,	51,723	2,760	98	....	54,581	....	......	266	48	....	1	....	....	....	3
Frank Williams and Co. Hillville,	Clarion,	47,297	1,947	179	....	49,423	....	......	244	100	1	....	1,300	390	....	8
J. V. Morris Claytonia,	Butler,	45,430	1,837	238	....	47,505	....	......	295	62	....	....	4,150	1,350	....	5
Raridan and East Brady Coal Co. East Brady,	Clarion,	46,348	500	150	....	46,998	....	......	268	64	....	....	10,000	....	....	5
Rochester and Pittsburgh Coal and Iron Co. Cowan No. 4,	Armstrong,	42,118	4,680	....	....	46,798	....	......	278	75	....	....	15,840	50	....	9
Nellie Coal Co. Nellie,	Butler,	42,911	2,958	322	....	46,191	....	......	258	83	....	....	....	500	....	10
Cunningham Coal Co. Chicora,	Butler,	44,920	286	299	....	45,505	....	......	275	64	....	....	14,925	3,250	....	6
Shenango Coal Co. Shenango,	Mercer,	36,134	8,038	357	....	44,529	....	......	291	83	....	....	5,420	2,025	....	7
Kittanning Plate Glass Co. Kittanning P. G.,	Armstrong,	....	43,358	....	....	43,358	....	......	280	40	....	....	....	....	....	......
S. J. Mounts S-106,	Butler,	38,000	....	....	....	38,000	....	......	256	60	....	....	....	....	....	4
Vogeley Coal Co. Vogeley,	Butler,	30,365	....	3,000	....	33,365	....	......	255	48	....	....	8,100	100	....	3
Francis Coal Co. Duff,	Beaver,	32,400	600	....	....	33,000	....	......	250	40	2	....	8,250	....	....	8
Grove City Coal Mining Co. New Hope,	Mercer,	26,872	1,889	100	....	28,861	....	......	256	52	....	....	12,000	....	....	4
Standard Coal Mining Co. Standard,	Butler,	18,304	136	296	....	18,736	....	......	247	23	....	....	....	200	....	4

TABLE 2.—Continued

Names of Operators and Mines	County	Number of tons of coal shipped to market	Number of tons used at mines for steam and heat	Number of tons sold to local trade and used by employes	Number of tons used in manufacture of coke	Total production of coal in tons	Total production of coke in tons	Number of coke ovens	Number of days worked	Number of employes	Number of fatal accidents	Number of non-fatal accidents	Explosives: Number of pounds of powder used	Explosives: Number of pounds of dynamite used	Explosives: Number of pounds of permissible explosives used	Number of horses and mules
Oakes Brothers Coal Co. Oakes,	Mercer,	13,300	1,110	408	....	14,818	....	......	255	35	....	....	2,100	1,200	....	3
North Pittsburgh Realty Co. Harmony Junction,	Butler,	....	14,809	....	....	14,809	....	......	254	23	....	....	8,450	50	....	2
J. H. McCurdy and Son McCurdy,	Mercer,	13,176	360	815	....	14,351	....	......	207	35	....	....	3,600	....	....	2
R. J. Dye and Co. Dye,	Mercer,	12,930	350	500	....	13,780	....	......	232	32	....	1	....	....	....	2
McKain Brothers McKain,	Butler,	11,108	....	....	....	11,108	....	......	146	17	....	....	2,112	125	....	2
Standard Fuel Supply Co. Brewster No. 2,	Butler,	7,800	200	150	....	8,150	....	......	195	40	....	....	10,175	100	....	2
Berger-Aiken Coal Co. Bethel,	Mercer,	4,700	300	1,200	....	6,200	....	......	61	34	....	....	2,800	....	....	3
Dominion Coal Co. Dominion,	Armstrong,	5,166	39	....	....	5,205	....	......	69	36	....	1	....	....	....	3

Wildwood Coal Co. Wildwood, ...	Butler, ...	5,000	....	....	....	5,000	....	......	110	18	....	....	500	....	....	2
Victoria Coal Co. Victoria, ...	Butler, ...	3,903	225	....	....	4,126	....	......	71	24	....	....	....	....	....	2
Preston Coal Co. Preston, ...	Clarion, ...	591	62	28	....	681	.. ..	......	30	38	....	....	108	....	....	3
Grand totals, ...	....	3,748,060	194,586	27,645	....	3,970,281	....	......	......	5,816	8	51	579,072	32,685	....	418

TABLE 2—Part 2

Names of Operators	County	Number of Boilers					Locomotives				Number of steam engines of all classes	Total horse power	Number of pumps delivering water to surface	Capacity in gallons per minute	Quantity delivered to surface per minute—gallons	Number of electric dynamos	Number of air compressors
		Cylindrical	Horse power	Tubular	Horse power	Total horse power	Gasoline	Steam	Air	Electric							
Allegheny River Mining Co.,	Armstrong,	......	......	8	1,200	1,200	....	....	....	20	3	400	8	880	760	4	......
Acme Gas Coal Co.,	Clarion,	......	......	4	700	700	....	....	....	5	4	1,087	6	1,242	1,242	4	......
Sharon Coal and Limestone Co.,	Lawrence, Butler, Mercer,	......	......	11	1,175	1,175	....	....	....	2	8	600	7	5,192	2,000	1	3
Mercer Iron and Coal Co.,	Mercer,	......	......	7	1,030	1,030	....	....	....	5	5	475	4	1,200	600	2	1
Keystone Mining Co.,	Clarion,	......	......	2	300	300	....	....	....	2	4	250	2	80	45	2	1
Erie Coal and Coke Co.,	Butler,	......	......	4	550	550	....	....	....	2	3	315	5	1,300	650	3	1
Samuel Sherwin,	Butler,	......	......	4	340	340	....	....	....	....	6	800	....	....	....	......	3
North Penn Coal Co.,	Armstrong,	......	......	12	1,580	1,580	....	....	....	5	6	1,300	7	785	523	5	2
State Line Coal Co.,	Beaver,	......	......	3	180	180	....	....	....	....	3	300	....	....	....	......	......
Butts Cannel Coal Co.,	Butler,	......	......	2	225	225	....	....	....	1	1	350	7	630	630	1	......
Lochrie Brothers Coal Co.,	Butler,	......	......	4	550	550	....	....	....	....	1	50	4	500	500	......	2
Monterey Coal Co.,	Clarion,	......	......	3	300	300	....	....	....	....	3	140	2	180	90	......	2
Pardoe Coal Co.,	Mercer,	......	......	5	260	260	....	2	....	....	2	150	2	400	275	......	1
Westerman-Filer Co.,	Mercer,	......	......	3	355	355	....	....	....	....	1	40	2	600	375	......	......
Widnoon Coal Mining Co.,	Armstrong,	2	500	....	....	500	....	....	....	....	2	135	....	....	....	......	1
Clarion Coal Mining Co.,	Clarion,	......	......	4	450	450	....	....	....	2	3	550	1	300	250	1	1
F. A. Mizener,	Butler,	......	......	1	150	150	....	....	....	....	1	275	....	....	....	......	1
H. K. Wick and Co., Inc.,	Clarion,	......	......	1	150	150	....	....	....	1	2	150	1	30	30	1	......
Chestnut Ridge Coal Mining Co.	Clarion,	......	......	2	300	300	....	....	....	1	4	150	....	....	....	1	1
H. K. Wick and Co.,	Clarion,	1	150	2	140	290	....	....	....	....	3	50	....	....	....	......	2
Hedstrom Coal Mining Co.,	Clarion,	......	......	2	300	300	....	....	....	1	2	360	1	300	200	1	2
Mutual Coal Mining Co.,	Butler,	......	......	2	300	300	....	....	....	....	......	....	....	....	....	......	1
Monarch Coal Co.,	Clarion,	......	......	3	250	250	....	....	....	1	4	290	2	50	50	1	1
Leesburg Coal Co.,	Mercer,	......	......	2	250	250	....	....	....	....	2	95	1	500	200	......	......
Grove Coal Co.,	Mercer,	......	......	3	120	120	....	....	....	....	2	80	3	1,600	800	......	......
Frank Williams and Co.,	Clarion,	......	......	2	250	250	....	....	....	2	2	250	2	408	408	1	1
J. V. Morris,	Butler,	......	......	1	150	150	....	....	....	....	2	65	....	....	....	......	1

Raridan and East Brady Coal Co.,	Clarion,	......	......	1	150	150	....	....	....	....	2	190	2	90	90	......	1
Rochester and Pittsburgh Coal and Iron Co.,	Armstrong,	......	......	2	300	300	....	....	....	....	1	120	2	150	80	......	3
Nellie Coal Co.,	Butler,	2	300	......	......	300	....	....	....	....	1	50	1	350	......	......	1
Cunningham Coal Co.,	Butler,	1	50	......	......	50	....	....	....	....	1	25	1	400	210	......	......
Shenango Coal Co.,	Mercer,	......	......	3	400	400	....	....	....	....	4	300	1	750	450	......	2
Kittanning Plate Glass Co.,	Armstrong,	......	......	......	......	......	....	....	....	1	......	......	......	......	......	......	......
Vogeley Coal Co.,	Butler,	......	......	......	......	......	....	....	....	....	1	8	......	......	......	......	......
Francis Coal Co.,	Beaver,	......	......	3	230	230	....	....	....	....	1	123	1	80	75	1	......
Grove City Coal Mining Co.,	Mercer,	......	......	3	275	275	....	....	....	....	2	60	2	730	250	......	1
Standard Coal Mining Co.,	Butler,	......	......	......	......	......	....	....	....	....	......	......	2	180	180	......	......
Oakes Brothers Coal Co.,	Mercer,	......	......	2	130	130	....	....	....	....	2	100	1	800	600	......	1
North Pittsburgh Realty Co.,	Butler,	......	......	......	......	......	....	....	....	....	1	25	1	250	125	......	......
J. H. McCurdy and Son,	Mercer,	......	......	1	80	80	....	....	....	....	2	85	2	300	175	......	......
R. J. Dye and Co.,	Mercer,	......	......	3	40	40	....	....	....	....	1	25	2	225	225	......	......
Standard Fuel Supply Co.,	Butler,	......	......	1	100	100	....	....	....	....	1	10	1	40	10	......	......
Berger-Aiken Coal Co.,	Mercer,	......	......	1	100	100	....	....	....	....	1	40	1	100	100	......	......
Dominion Coal Co.,	Armstrong,	......	......	......	......	......	....	....	....	....	......	......	1	70	35	......	......
Victoria Coal Co.,	Butler,	......	......	2	300	300	....	....	....	....	1	150	1	250	200	1	1
Preston Coal Co.,	Clarion,	......	......	2	225	225	....	....	....	....	......	......	1	70	40	......	1
Totals,		6	1,000	118	13,885	14,885	....	2	....	51	101	9,418	90	21,012	12,473	30	38

TABLE 3.—Number of Each Class of Employes Inside and Outside of Mines

Names of Operators	County	Inside												Outside								
		Mine foremen	Assistant mine foremen	Fire bosses	Miners	Machine runners	Machine loaders	Machine scrapers	Drivers and runners	Doorboys and helpers	Company men	All other employes	Total inside	Superintendents	Foremen	Blacksmiths and carpenters	Engineers and firemen	Coke employes	Bookkeepers and clerks	All other employes	Total outside	Grand total inside and outside
Allegheny River Mining Co.,	Armstrong,	3	4	1	70	20	355	20	31	....	28	7	539	2	3	10	10	....	4	41	70	609
Acme Gas Coal Co.,	Clarion,	3	1	....	118	13	174	13	34	7	11	....	374	3	....	7	7	....	2	28	47	421
Sharon Coal and Limestone Co.,	Lawrence, Butler, Mercer,	4	3	1	337	8	89	8	51	1	58	10	570	....	....	9	16	....	3	35	63	633
Mercer Iron and Coal Co.	Mercer,	1	3	....	60	10	70	10	25	4	21	10	214	1	1	6	8	....	6	24	46	260
Keystone Mining Co.,	Clarion,	2	2	....	25	9	115	9	14	3	7	....	186	2	....	3	3	....	3	17	28	214
Erie Coal and Coke Co.,	Butler,	2	1	....	45	12	74	12	8	1	6	2	163	1	....	2	4	....	1	13	21	184
Samuel Sherwin,	Butler,	2	....	....	......	10	83	10	12	1	7	....	125	1	....	2	6	....	1	12	22	147
North Penn Coal Co.,	Armstrong,	2	2	2	47	16	119	16	18	7	44	....	273	2	....	5	9	....	3	9	28	301
State Line Coal Co.,	Beaver,	1	3	....	155	......	......	......	....	1	14	....	174	1	....	2	4	....	....	14	21	195
Butts Cannel Coal Co.,	Butler,	2	....	....	17	7	65	7	13	....	6	4	121	1	....	4	2	....	....	6	13	134
Lochrie Brothers Coal Co.,	Butler,	1	....	....	......	8	60	8	6	1	3	....	87	1	....	1	3	....	1	4	10	97
Monterey Coal Co.,	Clarion,	1	1	....	......	6	67	6	8	....	3	....	92	1	....	3	2	....	....	11	17	109
Pardoe Coal Co.,	Mercer,	2	....	....	115	......	......	......	12	3	8	2	142	1	1	2	6	....	1	6	17	159
Westerman-Filer Co.,	Mercer,	1	1	....	115	......	......	......	12	....	5	....	134	1	....	1	3	....	1	7	13	147
Widnoon Coal Mining Co.	Armstrong,	1	1	....	38	4	45	4	8	3	3	....	107	1	1	1	3	....	1	12	19	126
Clarion Coal Mining Co.,	Clarion,	1	....	....	15	3	40	3	5	1	5	....	73	1	....	2	4	....	1	8	16	89
F. A. Mizener,	Butler,	1	....	....	80	1	12	1	7	1	4	....	107	....	....	1	3	....	1	4	9	116
H. K. Wick and Co., Inc.	Clarion,	1	....	....	......	5	80	5	8	1	2	....	102	1	....	1	2	....	1	10	15	117
Chestnut Ridge Coal Mining Co.,	Clarion,	1	....	....	......	3	60	3	7	2	2	....	78	1	....	3	3	....	....	6	13	91
H. K. Wick and Co.,	Clarion,	2	....	....	37	6	50	6	6	1	3	....	111	1	....	2	3	....	1	8	15	126
Hedstrom Coal Mining Co.,	Clarion,	1	1	....	......	4	52	4	6	1	3	....	72	1	....	3	4	....	1	11	20	92
Mutual Coal Mining Co.,	Butler,	1	....	....	15	5	45	5	12	....	2	1	86	1	....	1	2	....	1	6	11	97

Monarch Coal Co., ...	Clarion, ...	1	....	....	5	4	45	4	4	1	6	....	70	1	....	2	2	....	1	10	16	86
Leesburg Coal Co., ...	Mercer, ...	1	....	....	63	......	......	......	7	....	....	3	74	....	....	1	2	....	1	4	8	82
Grove Coal Co., ...	Mercer, ...	1	....	....	33	......	......	......	3	....	3	....	40	1	....	1	3	....	1	2	8	48
Frank Williams and Co.,	Clarion, ...	1	1	....	......	4	55	4	4	2	....	11	82	1	....	3	2	....	1	11	18	100
J. V. Morris, ...	Butler, ...	1	....	....	20	6	10	6	5	1	4	....	53	1	....	1	2	....	1	4	9	62
Raridan and East Brady Coal Co., ...	Clarion, ...	1	....	....	34	2	9	2	6	1	1	....	56	1	....	1	2	....	....	4	8	64
Rochester and Pittsburgh Coal and Iron Co., ...	Armstrong, ...	1	....	....	10	20	16	11	5	3	....	....	66	....	....	2	3	....	....	4	9	75
Nellie Coal Co., ...	Butler, ...	1	....	....	......	8	49	8	6	....	3	....	75	....	....	1	3	....	1	3	8	83
Cunningham Coal Co., ..	Butler, ...	1	1	....	40	......	......	......	8	....	2	6	58	1	....	1	1	....	1	2	6	64
Shenango Coal Co., ...	Mercer, ...	1	....	....	31	4	23	4	5	....	4	....	72	1	....	1	3	....	1	5	11	83
Kittanning Plate Glass Co., ...	Armstrong, ...	1	....	....	11	1	19	1	....	....	4	....	37	....	....	1	....	....	1	1	3	40
S. J. Mountz, ...	Butler, ...	1	....	....	47	......	......	......	3	....	6	....	57	1	....	....	....	....	....	2	3	60
Vogeley Coal Co., ...	Butler, ...	1	....	....	40	......	......	......	3	....	1	....	45	....	....	....	....	....	1	2	3	48
Francis Coal Co., ...	Beaver, ...	1	....	....	6	2	21	2	3	....	1	....	36	1	....	1	1	....	1	......	4	40
Grove City Coal Mining Co., ...	Mercer, ...	1	....	....	40	......	......	......	4	....	1	....	46	....	....	1	1	....	1	3	6	52
Standard Coal Mining Co., ...	Butler, ...	1	....	....	14	......	......	......	3	....	1	1	20	....	....	....	....	....	1	2	3	23
Oakes Brothers Coal Co.,	Mercer, ...	1	....	....	15	3	3	3	3	....	2	....	30	1	....	....	2	....	1	1	5	35
North Pittsburgh Realty Co., ...	Butler, ...	1	....	....	16	......	......	......	2	....	1	....	20	....	....	....	1	....	....	2	3	23
J. H. McCurdy and Son,	Mercer, ...	1	....	....	25	......	......	......	2	....	1	....	29	1	....	....	1	....	1	3	6	35
R. J. Dye and Co., ...	Mercer, ...	1	....	....	25	......	......	......	2	....	....	....	28	1	....	1	1	....	1	......	4	32
McKain Brothers, ...	Butler, ...	1	....	....	12	......	......	......	2	....	....	....	15	1	....	....	....	....	....	1	2	17
Standard Fuel Supply Co., ...	Butler, ...	1	....	....	25	......	......	......	2	....	5	2	35	1	....	1	1	....	1	1	5	40
Berger-Aiken Coal Co.,..	Mercer, ...	1	....	....	22	......	......	......	2	....	2	2	29	1	....	1	1	....	1	1	5	34
Dominion Coal Co., ...	Armstrong, ...	1	....	....	10	2	13	2	2	....	1	....	31	1	....	1	....	....	....	3	5	36
Wildwood Coal Co., ...	Butler, ...	1	....	....	15	......	......	......	1	....	....	....	17	....	....	....	....	....	....	1	1	18
Victoria Coal Co., ...	Butler, ...	1	....	....	1	2	20	2	2	....	1	....	29	1	....	1	2	....	....	1	5	34
Preston Coal Co., ...	Clarion, ...	1	....	....	2	2	14	2	2	1	1	5	30	1	....	1	1	....	1	4	8	38
Totals, ...	....	63	25	4	1,851	210	1,952	201	394	48	296	66	5,110	43	6	94	142	....	52	369	706	5,816

TABLE 3.—Part 2

Names of Operators and Mines	County	Average Number of Days Worked												
		January	February	March	April	May	June	July	August	September	October	November	December	Total
Allegheny River Mining Co.,	Armstrong,	8	8	8	7	15	12	15	17	17	23	23	24	177
Acme Gas Coal Co.,	Clarion,	26	22	25	24	26	25	24	26	24	23	22	20	287
Sharon Coal and Limestone Co.,	Lawrence, Butler, Mercer,	22	23	23	24	24	24	25	24	23	24	22	22	280
Mercer Iron and Coal Co.,	Mercer,	23	19	20	21	20	23	24	20	17	24	20	23	254
Keystone Mining Co.,	Clarion,	26	20	20	21	25	24	25	24	24	25	22	20	276
Erie Coal and Coke Co.,	Butler,	22	23	17	22	19	21	21	15	23	25	23	18	249
Samuel Sherwin,	Butler,	22	23	24	24	22	24	24	23	23	26	23	24	282
North Penn Coal Co.,	Armstrong,	5	9	11	10	11	10	10	24	24	27	19	16	176
State Line Coal Co.,	Beaver,	24	22	26	24	24	24	25	26	24	26	25	24	294
Butts Cannel Coal Co.,	Butler,	24	17	13	20	7	13	21	24	24	26	26	22	237
Lochrie Brothers Coal Co.,	Butler,	23	22	25	24	25	26	23	24	22	26	24	22	286
Monterey Coal Co.,	Clarion,	26	22	25	27	26	25	26	26	25	27	24	26	305
Pardoe Coal Co.,	Mercer,	25	18	18	18	24	24	23	23	23	25	20	20	261
Westerman-Filer Co.,	Mercer,	25	18	14	7	23	22	24	24	24	26	23	22	252
Widnoon Coal Mining Co.,	Armstrong,	25	20	19	22	21	16	23	18	20	23	21	18	246
Clarion Coal Mining Co.,	Clarion,	23	22	25	24	24	24	25	24	24	25	24	25	289
F. A. Mizener,	Butler,	26	24	26	26	24	25	24	26	24	27	22	24	298
H. K. Wick and Co., Inc.,	Clarion,	26	23	13	15	26	20	20	24	21	24	22	18	252
Chestnut Ridge Coal Mining Co.,	Clarion,	27	23	24	22	26	25	24	25	22	18	21	23	280
H. K. Wick and Co.,	Clarion,	23	21	20	23	21	25	22	22	22	27	22	21	269
Hedstrom Coal Mining Co.,	Clarion,	18	19	11	20	23	25	21	23	23	26	23	15	247
Mutual Coal Mining Co.,	Butler,	26	24	20	24	23	21	21	23	22	24	20	22	270
Monarch Coal Co.,	Clarion,	21	20	20	21	18	19	23	19	17	23	20	19	240
Leesburg Coal Co.,	Mercer,	24	21	17	22	19	21	19	24	19	19	16	20	241
Grove Coal Co.,	Mercer,	26	24	24	18	25	19	23	22	21	24	18	22	266
Frank Williams and Co.,	Clarion,	22	21	18	23	25	23	24	26	20	22	20	......	244
J. V. Morris,	Butler,	25	21	26	23	26	25	25	26	25	27	23	23	295
Raridan and East Brady Coal Co.,	Clarion,	23	23	21	21	23	24	25	24	24	25	20	15	268
Rochester and Pittsburgh Coal and Iron Co.,	Armstrong,	23	22	23	24	22	23	24	24	24	22	24	23	278
Nellie Coal Co.,	Butler,	14	19	25	21	23	24	20	23	19	25	22	22	258
Cunningham Coal Co.,	Butler,	26	21	25	21	21	25	22	24	20	24	22	24	275
Shenango Coal Co.,	Mercer,	24	23	27	26	24	25	24	25	24	22	21	26	291
Kittanning Plate Glass Co.,	Armstrong,	27	24	22	24	22	23	24	24	26	25	18	22	280
S. J. Mounts,	Butler,	26	23	11	25	8	25	25	26	25	25	24	14	256
Vogeley Coal Co.,	Butler,	27	24	19	14	14	12	25	23	23	27	24	24	255

Francis Coal Co.,	Beaver,	22	20	23	20	21	19	20	21	22	23	21	18	250
Grove City Coal Mining Co.,	Mercer,	25	21	17	24	23	14	24	19	21	23	22	23	256
Standard Coal Mining Co.,	Butler,	14	11	21	22	23	24	24	24	23	22	15	24	247
Oakes Brothers Coal Co.,	Mercer,	21	24	21	22	22	19	18	23	23	20	24	18	255
North Pittsburgh Realty Co.,	Butler,	16	22	19	21	22	22	22	22	18	25	21	24	254
J. H. McCurdy and Son,	Mercer,	22	18	13	19	16	17	23	14	18	24	17	11	207
R. J. Dye and Co.,	Mercer,	22	18	20	16	19	17	20	21	19	22	21	17	232
McKain Brothers,	Butler,	......	17	19	15	15	18	12	18	12	13	11	6	146
Standard Fuel Supply Co.,	Butler,	10	12	12	15	10	15	12	18	20	24	24	23	195
Berger-Aiken Coal Co.,	Mercer,	8	6	7	7	8	9	8	4	1	1	1	1	61
Dominion Coal Co.,	Armstrong,	......	......	......	......	......	......	......	......	7	18	22	22	69
Wildwood Coal Co.,	Butler,	......	......	......	......	......	......	......	20	24	24	22	20	110
Victoria Coal Co.,	Butler,	......	......	......	......	......	......	......	......	6	24	22	19	71
Preston Coal Co.,	Clarion,	14	16	......	......	......	......	......	......	......	......	......	......	30

TABLE 4.—Fatal Accidents Inside and Outside of Mines

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Number of widows	Number of orphans	Name of Mine	County	Nature and Cause of Accident in Brief
Feb. 12	Gomer Butler, ...	Welsh,	Company man,.	60	M.	1	....	Buhl No. 5, ...	Mercer, ...	Instantly killed by a blast while making a new haulage-way in the inner workings of the mine. He put a squib in the charged hole to fire a roof shot. He then sat down directly in front of the charged hole, and accidentally lit the squib by the flame of his lamp. He became confused and jumped beneath the shot instead of going back from it, and was crushed to death.
14	John Hagen, ...	American, .	Scraper, ...	36	M.	1	2	Hillville, ...	Clarion,.........	Fatally injured by being caught in chain cutter of an electric mining machine at face of room. Died in a few hours. The machine runner had just started the machine to undercut the coal and Hagen was standing at the side of it with his hand on the jack against the roof to hold the machine in place. Hagen's foot slipped under the guard chain of the machine and the leg of his trousers was caught by one of the bits of the chain cutter and he was pulled into the machinery.
April 17	John Kelly, ...	American, .	Mine foreman,.	48	M.	....	3	Duff, ...	Beaver, ...	Fatally injured by fall of roof on entry road while doing some repair work in setting timbers. Died six weeks afterward.
May 7	Area Bell, ...	American, .	Miner, ...	60	S.	....	....	Grant, ...	Butler, ...	Fatally injured by fall of roof at face of room. He was wedging down some mined coal when a large block of stone fell on him.

June	17	John Anico, ...	American, .	Miner, ...	18	S.	....	....	Duff, ...	Beaver, ...	Instantly killed by fall of roof at face of his father's room. His father was taking down some loose roof, which the mine foreman had ordered him to take down about fifteen minutes before the accident occurred. The boy was shoveling back the material into the gob, when a piece of the roof fell on him.
July	30	Charles Hedgling, ...	English, ...	Company man, .	52	M.	1	....	Chickasaw, ...	Armstrong, ...	Fatally injured by fall of roof on main haulage-way, while he and another repairman were taking it down to make the haulage-way safe, by order of the mine foreman. He was caught at the outer end of loose roof while they were prying it down.
Aug.	1	John Wiser, ...	American, .	Miner, ...	30	S.	....	....	Clarion, ...	Clarion, ...	Instantly killed by fall of roof at face of entry he was driving. He and his partner fired a shot in the roof, which failed to bring down all of the rock, and in order to allow it to fall, Wiser knocked out two road-side posts. After doing this he went under the loose stone and was shoveling back into the gob when the loose rock fell on him.
Oct.	21	John Bertossi, ...	Italian, ...	Miner, ...	30	S.	....	....	Chickasaw, ...	Armstrong, ...	Killed by fall of coal at face of room rib. He and another miner were extracting a room rib, and as it was squeezed badly the coal became loose suddenly as they were undercutting it. They failed to take the crushed coal down and it fell on Bertossi.

TABLE 5.—Non-Fatal Accidents Inside and Outside of Mines

Date of accident		Name of Person	Nationality	Occupation	Age	Married or single	Name of Mine	County	Nature and Cause of Accident in Brief
Jan.	6	Charles Steel, ...	American, ..	Company man, ..	25	M.	Chickasaw, ...	Armstrong, ...	Injured by mine car on main haulageway.
	7	Tony Jannetti, ...	Italian, ...	Miner, ...	22	S.	Grant, ...	Butler, ...	Finger cut off by fall of slate at face of his room.
	10	Clifford Cunningham, .	American, ..	Company man, ..	18	S.	Dominion, ...	Armstrong, ...	Both arms broken by falling off tipple. Outside.
	21	H. E. Duffy, ...	American, ..	Driver, ...	30	M.	Annandale No. 2, ...	Butler, ...	Slightly injured by mine cars on main haulageway.
Feb.	5	Allen Cameron, ...	American, ..	Miner, ...	27	M.	Enterprise, ...	Mercer, ...	Leg broken by fall of roof at face of entry pillar.
	11	Lea Deal, ...	American, ..	Driver, ...	28	M.	Buhl No. 4, ...	Butler, ...	Leg broken by haulage rope at inner parting.
	17	Ralph Guire, ...	American, ..	Miner, ...	33	M.	Chickasaw, ...	Armstrong, ...	Body injured by fall of slate at face of room rib.
	20	Frank River, ...	American, ..	Company man, ..	28	M.	Glenora, ...	Clarion, ...	Leg broken by mine cars. The motor ran into a switch.
	25	George Magnus, ...	American, ..	Runner, ...	19	S.	Chickasaw, ...	Armstrong, ...	Leg broken by mine cars on main haulageway.
March	14	Ray Winklwohs, ...	American, ..	Driver, ...	28	S.	Dye, ...	Mercer, ...	Leg broken by mine cars at inner parting.
	15	Curbino Dimarga, ...	Italian, ...	Machine runner, .	26	S.	Chickasaw, ...	Armstrong, ...	Leg injured by machinery of mining machine at his room parting.
	17	Peter Gazara, ...	Austrian, ...	Machine runner, .	31	M.	Enterprise, ...	Butler, ...	Hand cut by machinery of mining machine in his room.
	20	John Paris, ...	Italian, ...	Driver, ...	21	S.	Diamond No. 3, ...	Mercer, ...	Leg broken by mine cars on main entry.
	29	Earl Rankin, ...	American, ..	Miner, ...	20	S.	Acme, ...	Clarion, ...	Body injured by fall of slate at face of room rib.
		Easly McGuirk, ...	American, ..	Miner, ...	45	S.	Pennsylvania No. 1, .	Butler, ...	Foot injured by mine cars. Outside.
April	1	John Stull, ...	American, ..	Company man, ..	37	M.	Keystone No. 2, ...	Butler, ...	Back injured by fall of roof on entry road while repairing road.
	4	Tony Valpi, ...	Italian, ...	Miner, ...	43	M.	Buhl No. 5, ...	Mercer, ...	Internally injured by fall of slate at face of his entry.
	25	Harry H. Shakley, ...	American, ..	Company man, ..	42	S.	Enterprise, ...	Butler, ...	Hand cut by hatchet while repairing the track. Outside.
		Joe Adino, ...	Italian, ...	Company man, ..	29	S.	Dutch Hill, ...	Clarion, ...	Hip bruised by mine car at foot of inclined plane. Outside.

April	30	Sam Pontanari, ...	Italian, ...	Miner, ...	43	M.	Diamond No. 3, ...	Mercer, ...	Collar bone broken by fall of coal at face of his room.
May	2	Warren Hoopper, ...	American, ..	Runner, ...	30	S.	Chickasaw, ...	Armstrong, ...	Back injured by mine motor on haulageway.
	13	George Rowe, ...	English, ...	Miner, ...	45	M.	Pardoe, ...	Mercer, ...	Body injured by fall of roof at face of his room.
	19	Clair Speer, ...	American, ..	Miner, ...	21	S.	Kincaid, ...	Butler, ...	Leg injured by mine cars on main haulageway.
	28	Patrick Donley, ...	American, ..	Miner, ...	33	M.	Royal, ...	Butler, ...	Leg injured by fall of roof at the mouth of his room.
June	4	Clifford Haines, ...	American, ..	Company man, ..	18	S.	Furnace Run No. 2, .	Armstrong, ...	Hip dislocated by railroad cars at the tipple. Outside.
July	3	James Eberts, ...	American, ..	Miner, ...	44	M.	Eagle No. 5, ...	Clarion, ...	Hand injured by fall of roof at face of his room.
	15	William McQueeney, .	American, ..	Driver, ...	33	M.	Penn, ...	Clarion, ...	Two ribs broken by fall of roof at face of pillar.
	19	Peter Studifer, ...	Slavonian, .	Miner, ...	32	M.	Chickasaw, ...	Armstrong, ...	Hips and legs bruised by mine cars in his room.
	21	Steve Massage, ...	Slavonian, .	Miner, ...	35	M.	Chickasaw, ...	Armstrong, ...	Hip and foot injured by fall of roof at face of his room.
Aug.	1	Adam Shay, ...	American, ..	Miner, ...	38	S.	Dutch Hill, ...	Clarion, ...	Foot injured by fall of slate at face of his room.
	4	Harry Mason, ...	English, ...	Miner, ...	79	M.	Buhl No. 3, ...	Butler, ...	Body injured by fall of coal at face of his room.
	12	Christmas Mueig, ...	Italian, ...	Miner, ...	22	S.	Diamond No. 3, ...	Mercer, ...	Face and body injured by a dynamite blast in his room.
	14	Steve Bielowski, ...	Polish, ...	Miner, ...	38	M.	Buhl No. 2, ...	Lawrence, ...	Eye destroyed by a dynamite blast at face of his entry.
	27	Modesta Blagge, ...	Austrian, ...	Machine runner, .	42	S.	Furnace Run No. 1, .	Armstrong, ...	Foot cut by chain-cutter of mining machine at face of room.
	28	Lyman Hough, ...	American, ..	Company man, ..	39	M.	Chickasaw, ...	Armstrong, ...	Two fingers cut off by mine cars on main haulageway.
	29	Ross Traster, ...	American, ..	Miner, ...	22	S.	Chickasaw, ...	Armstrong, ...	Knee injured by mine cars while dropping them out of his room.
Sept.	5	Joe Roboresh, ...	Austrian, ...	Loader, ...	21	S.	Pine Run, ...	Armstrong, ...	Face and leg injured by fall of slate at face of room.
	19	Sam Laobarte, ...	Italian, ...	Miner, ...	29	M.	Acme, ...	Clarion, ...	Face and head injured by fall of roof at face of room.
	26	Richard Humphrey, ..	American, ..	Miner, ...	52	M.	Pine Run, ...	Armstrong, ...	Leg broken by fall of coal at face of his pillar.
Oct.	9	James Clabrie, ...	Italian, ...	Miner, ...	34	S.	Kee, ...	Mercer, ...	Face and arm injured by premature blast in his room.
	23	Buck Pardue, ...	American, ..	Miner, ...	48	M.	Diamond No. 3, ...	Mercer, ...	Knee bruised by fall of coal at face of his room rib.
	29	Ernto Gundo, ...	Austrian, ...	Miner, ...	19	S.	Pine Run, ...	Armstrong, ...	Right arm broken by fall of slate at face of his room.
Nov.	4	Tony Gerchock, ...	Austrian, ...	Miner, ...	53	M.	Pine Run, ...	Armstrong, ...	Back injured by fall of roof at face of his pillar.
	10	John Gorman, ...	Irish, ...	Company man, ..	33	M.	Furnace Run No. 2, .	Armstrong, ...	Forehead cut and bruised by fall of roof while repairing entry.
	26	Joe Frank, ...	Italian, ...	Miner, ...	23	S.	Diamond No. 3, ...	Mercer, ...	Leg broken by fall of coal while removing entry pillar.

TABLE 5—Continued

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Name of Mine	County	Nature and Cause of Accident in Brief
Dec. 13	John McCormick, ...	American, ..	Company man, ..	24	M.	Acme, ...	Clarion, ...	Body bruised by mine cars on entry road.
	J. C. Stockdill, ...	American, ..	Miner, ...	43	M.	Furnace Run No. 1,.	Armstrong, ...	Shoulder sprained by mine cars at mouth of room.
15	O. H. Pence, ...	American, ..	Machine runner, .	45	M.	Acme, ...	Clarion, ...	Two ribs broken by fall of coal at face of his room.
20	Albert Glasko, ...	Polish, ...	Scraper, ...	27	M.	Furnace Run No. 2,.	Armstrong, ...	Leg cut by chain-cutter of mining machine at face of room.
	James Julius, ...	Italian, ...	Scraper, ...	28	M.	Furnace Run No. 1,.	Armstrong, ...	Ankle injured by mine cars on entry road.
21	Hobert Mortimer, ...	American, ..	Doorboy, ...	18	S.	Acme, ...	Clarion, ...	Ankle broken by cars on entry road at his door.

CONDITION OF MINES

ALLEGHENY RIVER MINING COMPANY

Chicksaw—There was an ample volume of air in circulation, which was being well distributed, in separate splits, to the face of the workings. Drainage very good.

Furnace Run Nos. 1 and 2.—New mines. Ventilation and drainage good.

ACME GAS COAL COMPANY

Acme—The total quantity of air entering the mine was sufficient for its proper ventilation, but there were not enough of splits for its proper distribution. Improvements were being made by which more splits will be provided. Drainage very good.

Shannon—Ventilation and drainage reasonably good.

Penn—Ventilation and drainage satisfactory.

SHARON COAL AND LIMESTONE COMPANY

Buhl No. 2.—Ventilation reasonably good. The drainage was poor owing to the irregular lay of the coal seam and the wet condition of the mine.

Buhl No. 3.—Ventilation reasonably good. Drainage was defective at local points in the mine.

Buhl No. 4.—Ventilation and drainage satisfactory.

Buhl No. 5.—The mine, as a whole, as regards ventilation and drainage, was in very fair condition.

MERCER IRON AND COAL COMPANY

Stoneboro No. 7.—Ventilation fairly satisfactory. Drainage was defective in parts of the mine.

KEYSTONE MINING COMPANY

Sterling No. 3.—The conditions as to ventilation and drainage were satisfactory.

Sarah Furnace No. 1.—Ventilation and drainage reasonably good.

ERIE COAL AND COKE COMPANY

Keystone No. 1.—Ventilation weak at face of workings in one of the splits. Drainage fair.

Keystone No. 2.—Ventilation and drainage satisfactory. The traveling way toward the second opening was not in very good condition. A new opening will be provided soon.

SAMUEL SHERWIN

Kincaid—Ventilation and drainage very good.

Enterprise—The ventilation was good in the two divisions of this mine, but in one of them the drainage was defective at two points.

NORTH PENN COAL COMPANY

Kaylor—Ventilation was in fair volume at the face of the workings, but the drainage at some points was defective.

Pine Run—Ventilation good. Drainage was good except at one point in one of the entries.

STATE LINE COAL COMPANY

State Line—In very satisfactory sanitary condition.

BUTTS CANNEL COAL COMPANY

Annandale No. 1.—In fair condition both as to ventilation and drainage.

Annandale No. 2.—The sanitary condition of the mine in regard to ventilation and drainage was good.

LOCHRIE BROTHERS COAL COMPANY

Pennsylvania No. 1.—Ventilation and drainage good.

MONTEREY COAL COMPANY

Monterey—Ventilation fair, drainage good.

PARDOE COAL COMPANY

Pardoe—Ventilation reasonably good. Drainage was defective owing to the wet condition of the mine.

Kee—Ventilation and drainage fair.

WESTERMAN-FILER COMPANY

Diamond No. 3.—Ventilation good. Drainage was defective at local points in the mine.

WIDNOON COAL MINING COMPANY

Widnoon—Ventilation and drainage fair.

CLARION COAL MINING COMPANY

Clarion—Ventilation and drainage fair.

F. A. MIZENER

Grant—Ventilation good. Drainage defective.

H. K. WICK AND COMPANY, INCORPORATED

Glenora—Ventilation and drainage very satisfactory.

CHESTNUT RIDGE COAL MINING COMPANY

Chestnut Ridge—The mine, at the time of my last inspection, was not in a satisfactory condition, but improvements have been made since my visit.

H. K. WICK AND COMPANY (Formerly Eagle Coal Company)

Eagle No. 4.—Ventilation and drainage fair.

Eagle No. 5.—Ventilation and drainage good.

HEDSTROM COAL MINING COMPANY

Dutch Hill—Ventilation and drainage reasonably good.

MUTUAL COAL MINING COMPANY

Royle—Ventilation and drainage satisfactory.

MONARCH COAL COMPANY

Monarch—The sanitary condition of the mine was excellent.

LEESBURG COAL COMPANY

Leesburg—Ventilation fair. Drainage defective.

GROVE COAL COMPANY

Enterprise—Ventilation and drainage reasonably good.

FRANK WILLIAMS AND COMPANY (Formerly Hillville Coal Company)

Hillville—In very sanitary condition.

J. V. MORRIS

Claytonia—In fair condition.

RARIDAN AND EAST BRADY COAL COMPANY

East Brady—Ventilation and drainage only fair.

ROCHESTER AND PITTSBURGH COAL AND IRON COMPANY

Cowan No. 4.—Ventilation and drainage very satisfactory.

NELLIE COAL COMPANY

Nellie—Ventilation and drainage fair.

CUNNINGHAM COAL COMPANY

Chicora—Ventilation and drainage very satisfactory.

SHENANGO COAL COMPANY

Shenango—Ventilation fair. Drainage was defective at local points.

KITTANNING PLATE GLASS COMPANY

Kittanning P. G.—In very satisfactory condition.

S. J. MOUNTZ

S—106.—In excellent condition.

VOGELEY COAL COMPANY

Vogeley—In splendid sanitary condition.

FRANCIS COAL COMPANY

Duff—Ventilation fair. Drainage was defective in some parts.

GROVE CITY COAL MINING COMPANY

New Hope—Ventilation reasonably good. Drainage poor.

STANDARD COAL MINING COMPANY

Standard—In splendid condition.

OAKES BROTHERS COAL COMPANY

Oakes—Ventilation reasonably good. Drainage defective.

NORTH PITTSBURGH REALTY COMPANY

Harmony Junction—Ventilation and drainage reasonably good.

JAMES H. McCURDY AND SON

McCurdy—The sanitary condition of the mine was excellent.

R. J. DYE AND COMPANY

Dye—In very satisfactory condition.

McKAIN BROTHERS

McKain—Ventilation and drainage fair.

STANDARD FUEL SUPPLY COMPANY

Brewster No. 2.—The sanitary condition of the mine was very good.

BERGER-AIKEN COAL COMPANY

Bethel—Ventilation and drainage satisfactory.

DOMINION COAL COMPANY (Formerly McConnell Brothers Coal Company)

Dominion—In very satisfactory condition.

WILDWOOD COAL COMPANY

Wildwood—In reasonably satisfactory condition.

VICTORIA COAL COMPANY (Formerly Commonwealth Fuel Company)

Victoria—Ventilation reasonably good. Drainage was defective on traveling way toward the second opening.

PRESTON COAL COMPANY

Preston—Not inspected. Idle since February.

IMPROVEMENTS

ALLEGHENY RIVER MINING COMPANY

Chickasaw—Many improvements have been made to the main haulage roads and to the ventilating arrangements.

Furnace Run Nos. 1 and 2.—These are two new mines situated near Kittanning, on the Pittsburgh, Shawmut and Northern Railroad, in Armstrong County.

No. 1 mine is laid out on the double and treble entry plan and No. 2 mine is worked on the double entry system only. No. 1 mine is the larger operation, opened on the Lower Kittanning seam, from 3 to 4 feet in thickness. The thickness of coal at No. 2 is about 3 feet. These mines are well ventilated and drained and all of the equipment is of modern design.

Tracks: Gauge of track 42 inches. Rail: 40 pounds on main entries and outside tracks, 30 pounds on room entries, 16 pounds in rooms. Room rail laid on steel ties.

Electric Haulage: 8-ton Jeffrey locomotives for haulage. 3½-ton Goodman gathering locomotives (electric reel cable type) for gathering from dip rooms, and making up trips. One 15-ton Jeffrey locomotive hauling outside from No. 2 mine.

Drainage: Electric pumps used, Fairmount piston 30 gallons per minute and American piston 60 gallons per minute.

Ventilation: No. 1 mine in Lower Kittanning seam is ventilated by one Jeffrey 10 foot diameter 4 foot double inlet reversible fan, with a guaranteed capacity of 150,000 cubic feet per minute against 4 inch water gauge at 200 revolutions per minute as an every day performance, with a maximum of 200,000 cubic feet per minute against 5 inch water gauge at 230 revolutions per minute. Fan wheel and casing of steel plate, housing which represents ½ the power necessary for maximum capacity. Another 75 H. P. motor to be added when the development of the mine requires it, and be placed at the opposite end of the shaft from where the present motor is located. Fan is connected to motor by silent chain drive, and speed is regulated by pole changing device. Power for operating fan motor is derived directly from power house switchboard on separate circuit. No. 2 mine in Upper Freeport seam is ventilated by an 8-foot steel disc Stine fan with a guarantee of from 75,000 to 95,000 cubic feet per minute, against 1½ inch water gauge. Fan is driven by 40 H. P. 2,200 volt induction motor direct from high tension mains, and connected by silent chain drive. Fan is placed between the two drifts Nos. 7 and 8 on opposite sides of a small run, and connected by air boxes with the air drifts, making two splits at the fan entrance.

Transmission: High tension lines carrying 2,200 volts, 3 phase 60 cycle current constructed on high poles bringing wire 30 feet from ground. No. 3 and No. 6 copper wires are used. No. 6 static wire is carried on top of poles and grounded every fifth pole, as safeguard against lightning. High tension poles have an average distance apart of 100 feet, but at times 125 feet, and as low as 60 feet, according to conditions. 2,200 volts, A. C. current is transformed to 220 volts A. C. current by a bank of three 25 K. V. A. static transformers for use of the tipple machinery, and 2,200 volt A. C. current is transformed by motor generator set at the sub-stations to D. C. current 250 volts for use in locomotives, pumps, mining machines, etc. Trolley wires are 4-0 grooved, and the tracks are bonded by flexible 2-0 compression bonds. All lines are well protected by lightning arrestors, fuses and circuit breakers.

Mining: Coal is cut in room by Sullivan short-wall C. E.-7 machines, under-cut, 6 feet 6 inches, and entries are driven by Jeffrey 27 B. chain-breast machines.

Power: Power is generated at power plant near the Allegheny River from two batteries, two boilers each of 150 H. P. or 300 H. P. per battery, an aggregate of 600 H. P., with space reserved for an additional battery with a total of 900 H. P. Boilers are of the Phoenix return tubular type, 72 inches diameter by 18 feet long. Fuel is supplied from the tipple by flight conveyor and hand fired at first, provisions having been made for installation of stokers and ash-handling machinery. Slack coal is used exclusively for firing.

A. C. current 2,400 volts 3 phase, 60 cycles, is generated by one Westinghouse Parsons turbo alternator of 500 K. W. capacity and another similar unit is under erection, giving the power station a capacity of 1,000 K. W. Turbo alternators are condensing. The water is pumped from the river through condensors and delivered in hot well under engine-house floor, then pumped into railroad tank for use of locomotives and power house boilers.

One 200 K. W. synchronous motor generator set, necessary switchboards and one 300 cubic feet per minute air compressor, motor driven. Power-house building of steel, hy-rib and concrete construction, 133 feet long by 32 feet wide at engine compartment, and 45 feet wide at boiler compartment. Engine compartment 32 by 56 feet; boiler compartment 46 by 77 feet.

Sub-station at No. 2 mine contains one 200 K. W. synchronous motor generator set with switch-boards and feeds, 250 volt D. C. current in parallel with the main powerhouse motor generator set. Another sub-station will be installed at No. 6 drift; the house is built but the machinery not yet installed. Sub-station buildings are of brick construction 16 feet square.

Tipple: Wood construction. 2 cross-over dumps, 2 motor-driven car hauls, 2 car stops or feeders, 2 clamshell weigh-baskets with lowering device into 250 ton bin. 1 reciprocating motor driven feeder at bottom of bin, feeding into motor driven retarding conveyor carrying the coal to screen house. Retarding conveyor is about 300 feet long, 48 inches wide, with 48 by 16 inch flights, and travels at the rate of 100 feet per minute. Coal is handled from tipple floor to railroad over a different elevation of about 200 feet.

Screen House: Coal is delivered by retarding conveyor to screens; first, lump gravity screens, then nut shaking screens, motor driven. Slack coal is carried to boiler house by conveyor, motor driven. Coal prepared in Lump, Lump and Nut, Nut and Slack, Slack and Run of Mine. Coal is loaded on three tracks.

Shops: One machine shop 36 by 100 feet, one foundry 20 by 24 feet, and one woodworking shop 18 by 60 feet care for all repair work from the Company's mines and are equipped with modern machinery, motor driven. Buildings of steel, hy-rib and concrete construction.

Buildings: Company office and supply house, sandhouse, mine foreman's office, blacksmith shop and motor barn, are of wood construction covered with corrugated galvanized iron. Oil cellar of concrete, dug into the ground and covered with earth, holds one car-load of oil.

Emergency hospitals will be erected, one at No. 1 and one at No. 2 mine.

Towns: Lower town about 70 houses, upper town 50 houses, ranging from seven rooms to three rooms, wood construction and painted. Two deep wells, one at each town, with electric driven deep-well pumps and 20,000 gallon storage tanks supply the town with good and abundant water through 4 and 3 inch cast iron mains, with hydrants and fire plugs.

Capacity: Mine to produce 3,000 tons per day when fully developed. Present tonnage, 1,000 tons.

Coal from both mines to one tipple. Mine cars of single bumper type, are 105½ inches over all in length, 59 inches wide, over all, and 32 inches over rail, capacity 3,000 pounds, 16-inch wheels, 24-inch wheel base.

SHARON COAL AND LIMESTONE COMPANY

Buhl No. 5.—Installed an electric plant and electric system of mine haulage.

Buhl No. 2.—Installed the tail rope system of haulage.

MERCER IRON AND COAL COMPANY

Stoneboro No. 7.—Installed a machine shop in which the company makes its own mine wagons.

Also built 50 concrete stoppings inside.

KEYSTONE MINING COMPANY

Sterling No. 3.—An electric system of haulage has been installed and the coal is now being cut by two short-wall mining machines. The ventilation of the mine has been much improved.

BUTTS CANNEL COAL COMPANY

Annandale No. 2.—A new shaft opening, 55 feet deep and 8 feet by 8 feet, has been made at the face of the workings for ventilating purposes.

LOCHRIE BROTHERS COAL COMPANY

Pennsylvania No. 1.—Made a new second slope opening, 125 feet in length and 5 feet by 5 feet, at an angle of about 20 degrees. Two tube boilers, 150 H. P. each, have been added to the power plant. Built nine double miners' houses.

MONTEREY COAL COMPANY

Monterey—A new drift opening, 8 feet by 5 feet, has been made for ventilation and drainage purposes.

WIDNOON COAL MINING COMPANY

Widnoon—A drift opening, 8 feet by 5 feet, has been made at the face of the workings for ventilation and drainage purposes.

H. K. WICK AND COMPANY, INCORPORATED

Glenora—The inclined plane has been reconstructed and greatly improved. Installed electric power plant, with boiler 150 H. P., which furnishes power for motor haulage and for the cutting of the coal. Also installed a Robinson fan, 4 feet in diameter, electrically driven, at a new drift opening near the face of the workings.

CHESTNUT RIDGE COAL MINING COMPANY

Chestnut Ridge—Two new shafts have been sunk near face of workings, each about 55 feet deep and 6 feet by 6 feet. One of these shafts is to be used as a traveling way and the other as an air shaft.

S. J. MOUNTZ

S—106.—Installed a Stine fan 8 feet in diameter.

J. V. MORRIS

Claytonia—A second opening, drift 6 feet by 5 feet, has been made.

J. H. McCURDY AND SON

McCurdy—A second shaft opening, 28 feet deep and 7 feet by 9 feet, has been made.

PROSECUTIONS FOR VIOLATION OF THE MINING LAWS

Thomas G. Francis, Mine Superintendent, Duff mine, Francis Coal Company, was arrested July 31, for employing in said mine a boy who was under the age of 16 years. Mr. Francis plead guilty to the charge before a Justice of the Peace, and was fined $10 and the costs.

MINE FOREMEN'S, ASSISTANT MINE FOREMEN'S AND FIRE BOSSES' EXAMINATIONS

The annual examination of applicants for certificates of qualification as mine foremen, assistant mine foremen and fire bosses was held in Mercer Court House, Mercer, May 6. 7 and 8. The Board of Examiners was composed of Thomas K. Adams, Inspector; E. W. Filer, Superintendent, and Joseph Allen, Miner.

There were 10 applicants for certificates of qualification as mine foremen and 3 applicants for certificates of qualification as fire bosses. The following persons passed a satisfactory examination and were granted certificates:

MINE FOREMEN

Second Grade

Mont F. Crawford, Volant; Joseph C. Lehner, Samuel E. Clark, Rimersburg; Walter J. Davis, Kaylor.

FIRE BOSSES

Armor J. McClure, West Monterey; James Thomas Reynolds, Harrisville.

FOURTH DISTRICT

CLEARFIELD, JEFFERSON, ELK, CLINTON, CLARION AND CAMERON COUNTIES

DuBois, Pa., February 17, 1914.

Hon. James E. Roderick, Chief of Department of Mines:

Sir: In compliance with the Act of Assembly approved June 9, 1911, I herewith submit my annual report of the Fourth Bituminous District for the year ending December 31, 1913.

The year has been an unusually busy one for the operator and miner, the demand for coal being such that the mines with very few exceptions have been kept in operation very steadily. The production of coal for the district is, however, considerably less than for the year 1912, this being the result of a re-division of the mines of the district, some of the larger producers being transferred to the 12th and 28th districts.

Ten fatal accidents occurred during the year, eight of them by falls at the working face.

Respectfully submitted,

ELIAS PHILLIPS, Inspector.

SUMMARY OF STATISTICS

Number of mines,	68
Number of mines in operation,	66
Number of tons of coal shipped to market,	4,505,949
Number of tons used at mines for steam and heat,	166,946
Number of tons sold to local trade and used by employes,	71,969
Number of tons used in the manufacture of coke,	319,424
Number of tons of coal produced,	5,064,288
Number of tons of coke produced,	190,804
Number of coke ovens,	460
Number of coke ovens in operation,	460
Number of tons of coal produced by pick mining,	2,352,813
Number of tons produced by compressed air machines,	1,775,535
Number of tons produced by electrical machines,	935,940
Number of persons employed inside of mines,	5,691
Number of persons employed outside, including coke workers,	981
Number of persons employed at manufacture of coke,	132
Number of fatal accidents inside of mines,	10
Number of fatal accidents outside,	....
Number of non-fatal accidents inside of mines,	46
Number of non-fatal accidents outside,	3
Number of tons of coal produced per fatal accident inside,	506,429
Number of tons produced per fatal accident outside,	....
Number of tons produced per fatal accident inside and outside,	506,429
Number of persons employed per fatal accident inside,	569
Number of persons employed per fatal accident outside,	....
Number of persons employed per fatal accident inside and outside,	667
Number of persons employed per non-fatal accident inside,	124
Number of persons employed per non-fatal accident outside,	327
Number of persons employed per non-fatal accident inside and outside,	136
Number of wives made widows,	5
Number of children made orphans,	15
Number of steam locomotives used inside of mines,	....
Number of steam locomotives used outside,	8
Number of compressed air locomotives used inside,	....
Number of compressed air locomotives used outside,	....
Number of electric motors used inside,	81
Number of electric motors used outside,	3
Number of gasoline locomotives used inside,	....
Number of fans in use,	33
Number of furnaces in use,	31
Number of gaseous mines in operation,	3
Number of non-gaseous mines in operation,	63
Number of new mines opened,	8
Number of old mines abandoned,	3

TABLE A

PRODUCTION OF COAL

Names of Operators	Tons
Northwestern Mining and Exchange Company,	1,185,287
Shawmut Mining Company,	1,028,996
Buffalo and Susquehanna Coal and Coke Company,	746,129
Cascade Coal and Coke Company,	327,938
Kettle Creek Coal Mining Company,	304,841
Panther Run Coal Company,	163,523
Jefferson Coal Company,	163,450
Pennsy Coal Company,	162,248
McKnight Coal Company,	108,159
Falls Creek Coal Company,	101,069
McConnell Coal Company,	96,370
Stewart Coal Company,	91,919
Penfield Coal and Coke Company,	83,629
Dents Run Mining Company,	57,043
Clearfield Colliery Company,	51,172
Mercer Iron and Coal Company,	48,598
M. Burns,	41,584
Mount Hope Coal and Coke Company,	30,342
Harbison-Walker Refractories Company,	29,824
Baldauf Coal and Coke Company,	27,513
Bickford Fire Brick Company,	26,173
Auxiliary Coal Mining Company,	24,705
Owens Mining Company,	20,814
Knoxdale Coal and Coke Company,	18,922
Kaul and Hall,	18,632
George Minns, Jr.,	15,853
Co-operative Coal Company,	15,115
Rembrandt Peale,	13,743
Toby Coal Mining Company,	13,100
Eagle Valley Coal Company,	13,100
Rochester Coal Company,	10,883
Verstine-Hibbard and Company,	9,095
Pilkington and Ellery,	7,250
Samuel Wallwork,	5,925
Pyramid Coal Mining Company,	1,344
Total,	5,064,288

Production by Counties

Clearfield,	1,937,303
Jefferson,	1,315,535
Elk,	1,301,950
Clinton,	304,841
Clarion,	174,317
Cameron,	30,342
Total,	5,064,288

TABLE B.—Fatal and non-fatal accidents inside and outside of mines; number of tons of coal produced per accident; number of persons employed; number employed per accident

Names of Operators	Fatal Accidents			Non-Fatal Accidents			Tons of coal produced per fatal accident inside	Tons of coal produced per non-fatal accident inside	Number of employes inside	Number of employes outside	Total number of employes	Number of employes inside per fatal accident	Number of employes outside per fatal accident	Number of employes inside per non-fatal accident	Number of employes outside per non-fatal accident
	Inside	Outside	Total	Inside	Outside	Total									
Northwestern Mining and Exchange Co.,	2	......	2	22	1	23	592,644	53,876	1,403	247	1,650	702	....	64	247
Shawmut Mining Co.,	2	......	2	5	......	5	514,498	205,799	1,095	141	1,236	548	....	219	....
Buffalo and Susquehanna Coal and Coke Co.,	2	......	2	8	1	9	373,064	93,266	721	91	812	360	....	90	91
Kettle Creek Coal Mining Co.,	1	......	1	2	1	3	304,841	152,420	288	56	344	288	....	144	56
Panther Run Coal Co.,	......	......	......	1	......	1	....	163,523	158	20	178	....	....	158	....
Falls Creek Coal Co.,	......	......	......	4	......	4	....	25,267	88	17	105	....	....	22	....
Stewart Coal Co.,	1	......	1	1	......	1	91,919	91,919	96	8	104	96	....	96	....
M. Burns,	1	......	1	......	......	......	41,584	....	55	4	59	55	....	....	....
Harbison-Walker Refractories Co.,	......	......	......	1	......	1	....	29,824	45	7	52	....	....	45	....
Auxiliary Coal Mining Co.,	......	......	......	1	......	1	....	24,705	39	5	44	....	....	39	....
Owens Mining Co.,	1	......	1	......	......	......	20,814	....	57	10	67	57	....	....	....
Eagle Valley Coal Co.,	......	......	......	1	......	1	....	13,100	35	5	40	....	....	35	....
Miscellaneous Companies,	......	......	......	......	......	......	....	....	1,611	370	1,981	....	....	....	....
Totals and averages for district,	10	......	10	46	3	49	506,429	110,093	5,691	981	6,672	569	....	124	327

TABLE C.—Classification of Fatal Accidents Inside and Outside of Mines

	Months													
	January	February	March	April	May	June	July	August	September	October	November	December	Totals	Percentages
Causes of Accidents Inside														
Falls of coal, ...	....	....	1	1	....	....	....	....	....	....	....	....	2	20.00
Falls of slate, ...	....	....	....	....	....	....	....	....	....	1	....	....	1	10.00
Falls of roof, ...	1	1	....	....	....	....	....	....	2	....	....	1	5	50.00
Mine cars, ...	....	....	....	....	....	1	....	1	....	....	....	....	2	20.00
Totals, ...	1	1	1	1	....	1	....	1	2	1	....	1	10	100.00
Causes of Accidents Outside (No Accidents)														

TABLE D.—Classification of Non-Fatal Accidents Inside and Outside of Mines

	Months													
	January	February	March	April	May	June	July	August	September	October	November	December	Totals	Percentages
Causes of Accidents Inside														
Falls of coal, ...	2	1	1	1	1	2	1	1	1	2	....	....	13	28.26
Falls of roof, ...	2	2	....	....	1	1	1	2	1	1	....	....	11	23.91
Mine cars, ...	1	1	....	1	....	1	....	2	1	....	3	....	10	21.74
Explosions of powder and dynamite, ...	1	....	....	....	....	....	....	....	....	....	....	....	1	2.18
Blasts, premature and otherwise, ...	1	....	....	1	....	1	....	3	1	....	....	....	7	15.22
Mules, ...	....	....	....	....	....	....	1	....	....	....	....	....	1	2.17
Machinery, ...	....	....	....	1	....	....	....	1	....	....	....	....	2	4.34
Timber fell on him, ..	....	....	1	....	....	....	....	....	....	....	....	....	1	2.18
Totals, ...	7	4	2	4	2	5	3	9	4	3	3	....	46	100.00
Causes of Accidents Outside														
Cars, ...	1	....	....	....	....	....	....	....	....	....	....	....	1	33.33
Struck by piece of steel, ...	....	....	....	1	....	....	....	....	....	....	....	....	1	33.33
By falling, ...	....	....	....	....	1	....	....	....	....	....	....	....	1	33.34
Totals, ...	1	....	....	1	1	....	....	....	....	....	....	....	3	100.00
Grand totals inside and outside, ...	8	4	2	5	3	5	3	9	4	3	3	....	49	......

TABLE E.—Occupations of Persons Killed or Fatally Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
Inside													
Miners,	....	1	1	1	....	....	....	1	2	1	....	1	8
Machine runners,	1	....	....	....	....	....	....	....	....	....	....	....	1
Machine loaders,	....	....	....	....	....	1	....	....	....	....	....	....	1
Totals,	1	1	1	1	....	1	....	1	2	1	....	1	10
Outside (No Accidents)													

TABLE F.—Occupations of Persons Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
Inside													
Miners,	....	3	1	2	2	....	1	3	3	2	....	....	17
Machine loaders,	4	....	....	2	....	2	1	3	....	1	....	....	13
Machine scrapers,	....	....	....	....	....	1	....	....	....	....	....	....	1
Drivers and runners,	3	1	....	....	....	2	1	2	....	....	3	....	12
Company men,	....	....	1	....	....	....	....	1	1	....	....	....	3
Totals,	7	4	2	4	2	5	3	9	4	3	3	....	46
Outside													
Blacksmiths and carpenters,	....	....	....	1	1	....	....	....	....	....	....	....	2
Laborers,	1	....	....	....	....	....	....	....	....	....	....	....	1
Totals,	1	....	....	1	1	....	....	....	....	....	....	....	3
Grand totals inside and outside,	8	4	2	5	3	5	3	9	4	3	3	....	49

TABLE G.—Nationality of Persons Killed or Fatally Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
American,	....	....	....	....	....	....	....	....	....	....	....	1	1
Scotch,	....	....	1	....	....	....	....	....	1	....	....	....	2
Irish,	....	....	....	....	....	1	....	....	....	....	....	....	1
Polish,	1	1	....	....	....	....	....	....	1	1	....	....	4
Italian,	....	....	....	1	....	....	....	....	....	....	....	....	1
Slavonian,	....	....	....	....	....	....	....	1	....	....	....	....	1
Totals,	1	1	1	1	....	1	....	1	2	1	....	1	10

TABLE H.—Nationality of Persons Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
American,	3	1	....	1	1	2	1	3	1	1	2	....	16
English,	1	....	....	....	....	....	....	2	....	....	....	....	3
Scotch,	....	....	1	2	....	....	....	....	....	....	1	....	4
German,	....	....	....	....	....	....	....	....	1	....	....	....	1
Polish,	....	1	....	....	....	....	....	....	1	....	....	....	2
Italian,	....	....	....	....	....	2	....	1	....	....	....	....	3
Slavonian,	2	2	1	....	1	....	....	1	....	1	....	....	8
Lithuanian,	1	....	....	....	....	1	....	....	....	....	....	....	2
Austrian,	....	....	....	....	....	....	1	1	....	....	....	....	2
Russian,	1	....	....	1	....	....	1	....	1	....	....	....	4
Swedish,	....	....	....	1	1	....	....	1	....	1	....	....	4
Totals,	8	4	2	5	3	5	3	9	4	3	3	....	49

TABLE I.—Operators and mines, kind of openings, type and size of fans, size of furnaces, volume of air produced by fan or furnace per minute, number of splits of air currents and number of persons employed inside

Names of Operators and Mines	Kind of opening	Gaseous or non-gaseous	Method of ventilation	Diameter of fan in feet and inches	Width of blades in feet and inches	Depth of blades in feet and inches	Number of revolutions per minute	Water gauge developed—in inches	Name of fan	Power used	Area of furnace bars in square feet	Number of splits of air currents	Number of cubic feet of air per minute entering the mine at inlet	Total number of cubic feet of air per minute circulating in all the splits	Number of cubic feet of air per minute passing out at outlet	Number of persons employed inside
Northwestern Mining and Exchange Co.																
Eriton, ...	Shaft, ...	Gaseous,	Fan, ...	18.0	6.0	3.5	122	2.4	Capell, ...	Steam,......	..	10	198,750	132,800	204,000	630
Dagus No. 1, ...	Drift,.....	Non-gas.,	Fan, ...	12.0	7.0	1.5	125	1.9	Capell, ...	Steam,......	..	3	38,250	20,400	40,400	200
Dagus No. 3, ...	Drift,.....	Non-gas.,	Fan, ...	17.5	4.0	5.0	65	1.4	Murphy, ...	Steam,......	..	2	30,000	18,200	32,300	125
Dagus No. 26, ...	Drift,.....	Non-gas.,	Furnace,..	......	......	......	......	......	....	....	30	3	10,000	4,100	11,200	75
Eureka, ...	Drift,.....	Non-gas.,	Fan, ...	6.0	1.8	2.5	340	1.0	Stine, ...	Electricity,	..	2	14,200	8,000	16,000	124
West Clarion No. 1, ...	Drift,.....	Non-gas.,	Fan, ...	6.0	3.0	3.0	150	1.2	Champion, .	Electricity,	..	..	78,000			
West Clarion No. 6, ...	Drift,.....	Non-gas.,	Furnace,..	......	......	......	......	......	....	....	35	4		28,000	90,100	133
West Clarion No. 8, ...	Drift,.....	Non-gas.,	Furnace,..	......	......	......	......	......	....	....	24	..				
Clarion No. 4, ...	Drift,.....	Non-gas.,	Furnace,..	......	......	......	......	......	....	....	35	2	14,600	10,000	15,200	116
Shawmut Mining Co.																
Shawmut No. 5, ...	Drift,.....	Non-gas.,	Fan, ...	16.0	4.0	3.5	95	2.0	Kinney, ...	Steam,......	..	2	45,000	25,800	46,200	199
Shawmut No. 10, ...	Drift,.....	Non-gas.,	Furnace,..	......	......	......	......	......	....	....	24	1	14,000	4,600	14,600	86
Byrne No. 21, ...	Drift,.....	Non-gas.,	Fan, ...	16.0	8.0	4.5	95	2.0	Capell, ...	Steam,......	..	3	65,500	14,300	67,200	204
Cardiff No. 41, ...	Drift,.....	Non-gas.,	Fan, ...	16.0	8.0	4.5	100	1.4	Capell, ...	Steam,......	..	3	57,600	21,100	59,700	206
Browns Run No. 42, ...	Drift,.....	Non-gas.,	Fan, ...	18.0	4.5	5.0	65	1.2	Brazil, ...	Steam,......	..	4	45,300	14,400	46,300	128
Ramsay Nos. 1 and 2, ...	Drift,.....	Non-gas.,	Fan, ...	16.0	5.0	4.5	80	1.2	Brazil, ...	Steam,......	..	4	70,000	37,950	72,100	308
Yates, ...	Drift,.....	Non-gas.,	Furnace,..	......	......	......	......	......	....	....	15	1	8,400	2,800	9,600	22
Buffalo and Susquehanna Coal and Coke Co.																
DuBois No. 1, ...	Shaft, ...	Gaseous, ..	Fan, ...	8.0	3.8	3.8	300	4.5	Capell, ...	Steam,......	..	4	140,000	58,500	142,300	249
DuBois No. 2, ...	Shaft, ...	Gaseous, ..	Fan, ...	16.0	7.0	4.5	115	1.6	Capell, ...	Steam,......	..	6	134,250	78,100	136,000	472

Cascade Coal and Coke Co.																
Tyler No. 7, ...	Drift,.....	Non-gas.,	Fan, ...	7.0	1.5	2.5	300	0.4	Stine, ...	Electricity,	..	4	29,400	14,100	30,000	413
Tyler No. 8, ...	Drift,.....	Non-gas.,	2 Fans, ..	6.0	1.5	2.5	300	0.6	Stine, ...	Electricity,	..	6	49,600	32,500	50,000	
Kettle Creek Coal Mining Co.																
Kettle Creek No. 2, ...	Drift,.....	Non-gas.,	Fan, ...	16.0	6.0	3.5	90	1.3	Vulcan, ...	Steam,......	..	8	33,000	48,000	34,100	288
Kettle Creek No. 5, ...	Drift,.....	Non-gas.,	Fan, ...	7.0	1.5	2.5	200	0.2	Stine, ...	Electricity,	..	1	24,400	14,400	24,560	
Kettle Creek No. 6,*	Drift,.....	Non-gas.,	Fan, ...	7.0	1.5	2.5	200	......	Stine, ...	Electricity,	..	1	22,400	12,400	22,800	
Kettle Creek No. 8,†	Drift,.....	Non-gas.,	Fan, ...	7.0	1.5	2.5	200	......	Stine, ...	Electricity,	..	1	36,000	24,000	36,000	
Panther Run Coal Co.																
Panther Run, ...	Drift,.....	Non-gas.,	Fan, ...	16.0	6.0	4.5	95	1.5	Capell, ...	Steam,......	..	3	63,000	24,100	65,200	158
Jefferson Coal Co.																
Coal Glen, ...	Drift,.....	Non-gas.,	Furnace,..	......	......	......	......	......	....	....	60	3	47,000	25,400	50,000	158
Pennsy Coal Co.																
Wilson No. 2, ...	Drift,.....	Non-gas.,	Furnace,..	......	......	......	......	......	....	....	12	1	9,000	4,000	10,400	25
Rogers No. 3, ...	Drift,.....	Non-gas.,	Furnace,..	......	......	......	......	......	....	....	24	1	10,500	5,400	11,300	34
Summers No. 5, ...	Drift,.....	Non-gas.,	Furnace,..	......	......	......	......	......	....	....	30	1	18,600	6,800	19,400	40
Buckingham No. 6, ...	Drift,.....	Non-gas.,	Furnace,..	......	......	......	......	......	....	....	30	1	16,000	9,600	17,500	23
Owens No. 8, ...	Shaft, ...	Non-gas.,	Furnace,..	......	......	......	......	......	....	....	12	1	9,200	7,200	9,800	16
McKnight Coal Co.																
McKnight, ...	Drift,.....	Non-gas.,	Fan, ...	7.0	1.5	2.5	300	0.3	Stine, ...	Electricity,	..	1	26,000	12,800	27,100	136
Falls Creek Coal Co.																
Hopkins, ...	Drift,.....	Non-gas.,	Fan, ...	6.0	1.5	2.5	300	0.3	Stine, ...	Steam,......	..	1	18,000	9,600	19,700	88
McConnell Coal Co.																
McConnell, ...	Drift,.....	Non-gas.,	Fan, ...	7.5	3.2	......	150	0.2	Sturtevant,	Natural gas,	..	1	22,500	10,000	23,400	55
Beechton, ...	Drift,.....	Non-gas.,	Fan, ...	6.0	3.2	......	......	......	Sturtevant,	Electricity,	..	1	‡	....	....	36
Stewart Coal Co.																
Stewart No. 1,§	Drift,.....	Non-gas.,	Furnace,..	......	......	......	......	......	....	....	24	..	....	....	....	....
Stewart No. 2, ...	Drift,.....	Non-gas.,	Furnace,..	......	......	......	......	......	....	....	24	1	19,400	8,000	20,250	34
Stewart No. 3,†	Drift,.....	Non-gas.,	Furnace,..	......	......	......	......	......	....	....	..	..	....	....	....	12
Penfield Coal and Coke Co.																
Penfield No. 1, ...	Drift,.....	Non-gas.,	Fan, ...	6.0	1.5	2.5	300	0.5	Stine, ...	Electricity,	..	4	31,200	18,000	31,900	61
Penfield No. 2, ...	Drift,.....	Non-gas.,	Fan, ...	6.0	1.5	2.5	300	0.4	Stine, ...	Electricity,	..	2	28,600	9,400	29,400	71
Dents Run Mining Co.																
Dents Run No. 1, ...	Drift,.....	Non-gas.,	Fan, ...	7.0	1.5	2.5	250	0.4	Stine, ...	Steam,......	..	2	44,500	17,600	44,900	94
Dents Run No. 2,§	Drift,.....	Non-gas.,	Fan, ...	......	......	......	......	......	....	....	..	..	....	....	....	....
Clearfield Colliery Co.																
Caldwell No. 2, ...	Drift,.....	Non-gas.,	Fan, ...	7.0	1.8	2.5	250	0.2	Stine, ...	Electricity,	..	1	26,400	7,000	27,000	64

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*Old mine reopened.
†New mine.
‡No air measurements taken.
§Idle.

TABLE I.—Continued

Names of Operators and Mines	Kind of opening	Gaseous or non-gaseous	Method of ventilation	Diameter of fan in feet and inches	Width of blades in feet and inches	Depth of blades in feet and inches	Number of revolutions per minute	Water gauge developed—in inches	Name of fan	Power used	Area of furnace bars in square feet	Number of splits of air currents	Number of cubic feet of air per minute entering the mine at inlet	Total number of cubic feet of air per minute circulating in all the splits	Number of cubic feet of air per minute passing out at outlet	Number of persons employed inside
Mercer Iron and Coal Co.																
Sutton No. 9, ...	Shaft, ...	Non-gas.,	Fan, ...	10.0	3.0	3.5	30	0.1	Brazil, ...	Steam, ...	..	1	22,500	5,250	22,800	23
Sutton No. 10, ...	Drift, ...	Non-gas.,	Furnace, ..	......	......	......	......	......	....	....	15	1	10,500	2,100	11,200	81
M. Burns																
Penn No. 5, ...	Drift, ...	Non-gas.,	Furnace, ..	......	......	......	......	......	....	....	28	1	13,000	8,200	13,700	55
Mount Hope Coal and Coke Co.																
Mount Hope, ...	Drift, ...	Non-gas.,	Furnace, ..	......	......	......	......	......	....	....	12	1	9,600	2,600	10,000 }	35
Round Top, ...	Drift, ...	Non-gas.,	Natural, ..	......	......	......	......	......	....	....	..	1	4,300	1,200	4,800 }	
Harbison-Walker Refractories Co.																
Plane, ...	Drift, ...	Non-gas.,	Furnace, ..	......	......	......	......	......	....	....	30	1	14,700	6,400	15,300	22
Riverside, ...	Drift, ...	Non-gas.,	Furnace, ..	......	......	......	......	......	....	....	40	1	15,250	4,800	15,800	23
Baldauf Coal and Coke Co.																
Baldauf No. 1, ...	Drift, ...	Non-gas.,	Furnace, ..	......	......	......	......	......	....	....	24	1	4,800	1,500	5,400	15
Cather No. 1, ...	Drift, ...	Non-gas.,	Furnace, ..	......	......	......	......	......	....	....	12	1	3,000	2,000	3,500	21
Bickford Fire Brick Co.																
Bickford, ...	Drift, ...	Non-gas.,	Furnace, ..	......	......	......	......	......	....	....	20	1	11,880	4,000	12,400	20
Auxiliary Coal Mining Co.																
Carbon No. 1, ...	Drift, ...	Non-gas.,	Furnace, ..	......	......	......	......	......	....	....	30	1	7,500	2,700	8,200	39

Owens Mining Co. Summerville, ...	Drift,.....	Non-gas.,	Fan, ...	4.0	2.5	3.0	300	4.0	Buffalo, ...	Steam,......	..	1	24,000	6,000	24,600	57
Knoxdale Coal and Coke Co. Campbell,†	Drift, ...	Non-gas., .	Furnace,..	......	......	......	......	......	....	....	12	1	7,500	3,400	8,000	28
Kaul and Hall King, ...	Drift......	Non-gas.,	Furnace,..	......	......	......	......	......	....	....	12	1	4,600	3,400	5,200	28
George Minns, Jr. Clear Run, ...	Drift,.....	Non-gas.,	Fan, ...	7.0	1.8	2.5	300	0.4	Stine, ...	Electricity,	..	1	10,000	5,400	10,500	19
Co-operative Coal Co. Underwood,†	Drift,.....	Non-gas.,	Furnace,..	......	......	......	......	......	....	....	15	1	8,400	3,200	8,700	27
Rembrandt Peale Bloomington No. 9, ...	Drift,.....	Non-gas.,	Furnace,..	......	......	......	......	......	....	....	12	1	5,600	1,500	6,700	12
Toby Coal Mining Co. Black Diamond, ...	Drift,.....	Non-gas.,	Furnace,..	......	......	......	......	......	....	....	12	1	6,300	6,100	6,800	22
Eagle Valley Coal Co. Eagle No. 1,†	Drift,.....	Non-gas.,	Furnace,..	......	......	......	......	......	....	....	30	1	9,600	4,800	10,600	35
Rochester Coal Co. Rochester, ...	Drift,.....	Non-gas.,	Natural, ..	......	......	......	......	......	....	....	..	1	6,400	2,400	6,600	17
Verstine-Hibbard and Co. Black Prince, ...	Drift,.....	Non-gas.,	Natural,..	......	......	......	......	......	....	....	..	1	5,400	2,000	6,000	16
Pilkington and Ellery Coaldale No. 14, ...	Drift,.....	Non-gas.,	Furnace,..	......	......	......	......	......	....	....	24	1	7,400	3,200	7,900	23
Samuel Wallwork Pancoast,†	Drift,.....	Non-gas.,	Natural, ..	......	......	......	......	......	....	....	..	1	2,500	1,300	2,800	30
Pyramid Coal Mining Co. Pyramid No. 1,†	Drift,.....	Non-gas.,	Fan, ...	6.0	1.8	2.5	......	......	....	....	..	1	....	....	....	18

†New mine.

TABLE J.—Mines using coal cutting machines, power used, geological and local names of seams, thickest and thinnest seams where machines are used, and the approximate number of tons produced by machines

Names of Operators	Names of Mines	Kind of opening	Gaseous or non-gaseous	Number of mining machines used	Power used by machines	Geological and local names of seams	Average thickness in inches	Height of Seam in Inches		Approximate number of tons produced by machines
								Thickest	Thinnest	
Northwestern Mining and Exchange Co.,	Eriton,	Shaft,	Gaseous,	46	Compressed air,	D or Lower Freeport,	84	108	60	520,621
	Dagus No. 1,	Drift,	Non-gas.,	16	Electricity,	D or Lower Freeport,	38	46	30	175,148
	West Clarion Nos. 1, 6, 8.	Drift,	Non-gas.,	4	Electricity,	D or Lower Freeport,	34	50	18	62,142
Totals,				66						757,911
Shawmut Mining Co.,	Shawmut No. 5,	Drift,	Non-gas.,	16	Electricity,	B or Lower Kittanning.	30	36	24	96,002
	Byrne No. 21,	Drift,	Non-gas.,	24	Electricity and	B or Lower Kittanning	38	44	32	107,548
	Browns Run No. 42,	Drift,	Non-gas.,	5	Electricity,	B or Lower Kittanning,	36	40	32	17,219
	Ramsay Nos. 1 and 2,	Drift,	Non-gas.,	24	Electricity,	D or Lower Freeport,	51	56	46	270,515
Totals,				69						491,284
Buffalo and Susquehanna Coal and Coke Co.,	DuBois No. 1,	Shaft,	Gaseous,	20	Compressed air,	D or Lower Freeport,	54	66	42	236,938
	DuBois No. 2,	Shaft,	Gaseous,	25						509,146
Totals,				45						746,084

Kettle Creek Coal Mining Co., ...	Kettle Creek No. 2, ...	Drift,.....	Non-gas.,	2	Electricity,.......	B or Lower Kittanning,	69	78	60	44,854
Panther Run Coal Co., ...	Panther Run, ...	Drift,.....	Non-gas.,	24	Electricity and Compressed air,	D or Lower Freeport,	53	66	40	160,686
Pennsy Coal Co., ...	Rogers No. 3, ...	Drift,.....	Non-gas.,	5	Electricity and Compressed air,	B or Lower Kittanning,	42	48	36	25,695
	Summers No. 5, ...	Drift,.....	Non-gas.,	3	Electricity,.......		33	38	28	41,455
	Buckingham No. 6, ...	Drift,.....	Non-gas.,	2	Electricity,.......		31	36	26	20,504
	Owens No. 8, ...	Shaft, ...	Non-gas.,	2	Electricity,.......		32	36	28	3,528
Totals, ...	....	....	....	12	....	....	......	......	......	91,182
McKnight Coal Co., ...	McKnight, ...	Drift,.....	Non-gas.,	4	Electricity,.......	B or Lower Freeport,	48	42	42	96,779
Falls Creek Coal Co., ...	Hopkins, ...	Drift,.....	Non-gas.,	14	Compressed air,..	D or Lower Freeport,	63	72	54	95,063
McConnell Coal Co., ...	McConnell, ...	Drift,.....	Non-gas.,	4	Electricity,.......	D or Lower Freeport,	45	54	36	70,000
	Beechton, ...	Drift,.....	Non-gas.,	2	Electricity,.......	D or Lower Freeport,	54	60	42	1,000
Totals, ...	....	....	....	6	....	....	......	......	......	71,000
Stewart Coal Co., ...	Stewart Nos. 2 and 3, ...	Drift,.....	Non-gas.,	6	Compressed air,..	D or Lower Freeport,	54	66	42	63,590
Dents Run Mining Co., ...	Dents Run No. 1, ...	Drift,.....	Non-gas.,	6	Compressed air,..	B or Lower Kittanning,	36	36	36	5,612
Clearfield Colliery Co., ...	Caldwell No. 2, ...	Drift,.....	Non-gas.,	2	Electricity,.......	D or Lower Freeport,	36	36	36	18,620
Mercer Iron and Coal Co., ...	Sutton No. 9, ...	Shaft, ...	Non-gas.,	2	Compressed air,..	A or Brookville,	48	54	42	20,600
Owens Mining Co., ...	Summerville, ...	Drift,.....	Non-gas.,	6	Compressed air,..	A or Brookville,	48	54	42	18,000
George Minns, Jr., ...	Clear Run, ...	Drift,.....	Non-gas.,	1	Electricity,.......	D or Lower Freeport,	72	84	60	8,174

TABLE J.—Continued

Names of Operators	Names of Mines	Kind of opening	Gaseous or non-gaseous	Number of mining machines used	Power used by machines	Geological and local names of seams	Average thickness in inches	Height of Seam in Inches		Approximate number of tons produced by machines
								Thickest	Thinnest	
Eagle Valley Coal Co., ...	Eagle No. 1, ...	Drift,.....	Non-gas.,	2	Compressed air,..	D or Lower Freeport,	48	48	48	13,100
Verstine-Hibbard and Co., ...	Black Prince, ...	Drift,.....	Non-gas.,	2	Compressed air,..	A or Brookville,	39	48	30	8,936
Grand totals, ...	....	....	....	270	....	....	......	......	......	2,711,475

TABLE 1.—Operators, Location of Mines, Railroads, etc.

Names of Operators and Mines	County	Name of General Superintendent	Post Office	Name of Superintendent	Post Office	Railroad to Mine
Northwestern Mining and Exchange Co.						
Eriton,	Clearfield,	John H. Fulford,	DuBois,	E. W. Robertson,	Jefferson Line,	Erie
Dagus Nos. 1, 3, 26,	Elk,			E. W. Robertson,	Jefferson Line,	
Eureka,	Elk,			James Whamond,	Dagus Mines,	
Clarion No. 4,	Elk,			James Whamond,	Dagus Mines,	
West Clarion Nos. 1, 6, 8,	Jefferson,			H. J. Thomas,	Brockwayville,	
Shawmut Mining Co.						
Shawmut Nos. 5 and 10,	Elk,	W. R. Craig,	St. Marys,	James Jones,	Byrnedale,	P. S. and N.
Byrne No. 21,						
Cardiff No. 41,						
Browns Run No. 42,						
Ramsay Nos. 1 and 2,	Jefferson,			Hugh Reynolds,	Ramsaytown,	P. S. and N.
Yates,	Elk,	Alfred Yates,	Shawmut,	R. W. Brian,	Shawmut,	
Buffalo and Susquehanna Coal and Coke Co.						
DuBois No. 1,	Clearfield,	James Harvey,	DuBois,	William R. Chick,	DuBois,	Buffalo and Susquehanna
DuBois No. 2,				Hugh McCutcheon,		
Cascade Coal and Coke Co.						
Tyler Nos. 7 and 8,	Clearfield,	C. C. Gadd,	Sykesville,	George J. Baummer,	Tyler,	Buffalo and Susquehanna
Kettle Creek Coal Mining Co.						
Kettle Creek Nos. 2, 5, 6,† 8,‡	Clinton,	George L. Miller,	Bitumen,	H. G. From,	Bitumen,	Pennsylvania
Panther Run Coal Co.						
Panther Run,	Jefferson,	E. P. Newton,	Pardus,	Henry Redding,	Pardus,	Pennsylvania
Jefferson Coal Co.						
Coal Glen,	Jefferson,	Austin Blakeslee,	DuBois,	F. B. Blakeslee,	Coal Glen,	B. R. and P.
Pennsy Coal Co.						
Wilson No. 2,	Clarion,	A. N. Cole,	Clarion,			Franklin and Clarion
Rogers No. 3,	Clarion,					
Summers No. 5,	Jefferson,					
Buckingham No. 6,	Jefferson,					
Owens No. 8,	Clarion,					

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†Old mine reopened.
‡New mine.

TABLE 1.—Continued

Names of Operators and Mines	County	Name of General Superintendent	Post Office	Name of Superintendent	Post Office	Railroad to Mine
McKnight Coal Co.						
McKnight,	Jefferson,	Vernon F. Taylor,	Brockwayville,	Vernon F. Taylor,	Brockwayville,	P. S. and N.
Falls Creek Coal Co.						
Hopkins,	Clearfield,	I. A. Shaffer,	Lock Haven,	Julius R. Axelson,	DuBois,	Penna. and B. R. and P.
McConnell Coal Co.						
Beechton,‡ McConnell,	Jefferson,	F. G. St. Clair,	DuBois,	James Ewing, Amos Goss,	Brockwayville, Falls Creek,	P. S. and N.
Stewart Coal Co.						
Stewart Nos. 1,§ 2, 3,‡	Jefferson,			W. S. Reid,	Knoxdale,	P. S. and N.
Penfield Coal and Coke Co.						
Penfield No. 1, Penfield No. 2,	Clearfield, Elk,	L. W. Smith,	Penfield,	J. E. Fry,	Penfield,	Pennsylvania
Dents Run Mining Co.						
Dents Run Nos. 1 and 2,§	Elk,	Frank Williams,	Buffalo,	A. E. Caldwell,	Dents Run,	Dents Run
Clearfield Colliery Co.						
Caldwell No. 2,	Clearfield,	A. W. Bigler,	Clearfield,	W. H. Kephart,	Curwensville,	N. Y. C. and H. R.
Mercer Iron and Coal Co.						
Sutton No. 9, Sutton No. 10,	Clarion,	Robert P. Cann,	Stoneboro,	G. S. Stewart, George Young,	Summerville, Kingsville,	Franklin and Clarion
M. Burns						
Penn No. 5,	Clearfield,	M. Burns,	Houtzdale,	H. P. Burns,	Grampian,	Pennsylvania
Mount Hope Coal and Coke Co.						
Mount Hope, Round Top,	Cameron,			George A. Walker,	Sterling Run,	Pennsylvania
Harbison-Walker Refractories Co.						
Plane, Riverside,	Clearfield,	N. McQuillen,	Woodland,	J. M. Baker,	Woodland,	N. Y. C. and H. R. and Penna.

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‡New mine.
§Idle.

Baldauf Coal and Coke Co. Baldauf No. 1, Cathers No. 1,	Clarion,	J. M. Harvey,	Strattonville,	J. M. Harvey,	Strattonville,	Franklin and Clarion
Bickford Fire Brick Co. Bickford,	Clearfield,	F. W. Bailey,	Curwensville,	O. O. Norris,	Curwensville,	
Auxiliary Coal Mining Co. Carbon No. 1,	Clearfield,	H. H. Homer,	Clearfield,	H. H. Homer,	Clearfield,	Pennsylvania
Owens Mining Co. Summerville,	Jefferson,			A. N. Cole,	Clarion,	Franklin and Clarion
Knoxdale Coal and Coke Co. Campbell,‡	Jefferson,			Ira J. Campbell,	Brookville,	P. S. and N.
Kaul and Hall King,*	Elk,			P. J. Fleming,	St. Marys,	P. S. and N.
George Minns, Jr. Clear Run,	Clearfield,	George Minns, Jr.,	DuBois,	George Minns, Jr.,	DuBois,	
Co-operative Coal Co. Underwood,‡	Clarion,	R. C. Sell,	Strattonville,			Franklin and Clarion
Rembrandt Peale Bloomington No. 9,	Jefferson,			A. M. Dunsmore,	St. Benedict,	B. R. and P.
Toby Coal Mining Co. Black Diamond,	Jefferson,	D. D. Groves,	Brockwayville,			Erie
Eagle Valley Coal Co. Eagle No. 1,‡	Jefferson,			W. J. McAnnich,	Knoxdale,	P. S. and N.
Rochester Coal Co. Rochester,	Clearfield,	Thomas Kearns,	DuBois,			
Verstine-Hibbard and Co. Black Prince,	Jefferson,	F. L. Verstine,	Brookville,	F. L. Verstine,	Brookville,	Pennsylvania
Pilkington and Ellery Coaldale No. 14,*	Clearfield,	Fred Pilkington,	Curwensville,			Pennsylvania
Samuel Wallwork Pancoast,‡	Jefferson,	Samuel Wallwork,	Summerville,			Pennsylvania
Pyramid Coal Mining Co. Pyramid No. 1,‡	Clearfield,			M. J. Kelley,	Curwensville,	N. Y. C. and H. R.

*Worked out.
‡New mine.

TABLE 2.—Number of tons of coal mined and tons of coke produced, number of days worked, number of persons employed, number killed and injured, quantity of powder, dynamite and permissible explosives used, etc.

Names of Operators and Mines	County	Number of tons of coal shipped to market	Number of tons used at mines for steam and heat	Number of tons sold to local trade and used by employes	Number of tons used in manufacture of coke	Total production of coal in tons	Total production of coke in tons	Number of coke ovens	Number of days worked	Number of employes	Number of fatal accidents	Number of non-fatal accidents	Explosives			Number of horses and mules
													Number of pounds of powder used	Number of pounds of dynamite used	Number of pounds of permissible explosives used	
Northwestern Mining and Exchange Co.																
Eriton, ...	Clearfield, ...	496,461	22,021	2,139	....	520,621	....	......	226	783	2	19	156,186	17,000	13,000	9
Dagus Nos. 1, 3, 26 and Eureka, ...	Elk, ...	412,792	15,547	1,923	....	430,262	....	......	287	612	....	3	129,078	2,000	....	40
Clarion No. 4, ...	Elk, ...	93,701	522	481	....	94,704	....	......	279	139	....	....	28,411	....	....	20
West Clarion Nos. 1, 6, 8, ...	Jefferson, ...	137,131	2,385	184	....	139,700	....	......	271	166	....	1	41,910	650	....	6
Totals, ...	....	1,140,065	40,475	4,727	....	1,185,287	....	......	......	1,650	2	23	355,585	19,650	13,000	75
Shawmut Mining Co.																
Shawmut No. 5, ...	Elk, ...	167,426	3,294	583	....	171,308	....	......	275	228	....	....	44,025	1,713	....	....
Shawmut No. 10, ...		17,642	....	479	....	18,121	....	......	237	42	....	....	7,248	181	....	4
Byrne No. 21, ...		178,873	10,707	990	....	190,570	....	......	270	238	1	1	71,083	2,096	....	7
Cardiff No. 41, ...		152,691	2,118	1,551	....	156,355	....	......	264	227	....	....	58,320	1,719	....	40
Browns Run No. 42, ...		105,429	3,073	....	....	108,502	....	......	266	140	1	....	40,471	1,194	....	....
Ramsay Nos. 1 and 2,	Jefferson, ...	372,830	4,637	1,091	....	378,558	....	......	276	337	....	4	27,225	20,969	....	19
Yates, ...	Elk, ...	....	5,463	124	....	5,587	....	......	161	24	....	....	750	1,400	....	2
Totals, ...	....	994,891	29,287	4,818	....	1,028,996	....	......	......	1,286	2	5	249,122	29,272	....	72
Buffalo and Susquehanna Coal and Coke Co.																
DuBois No. 1, ...	Clearfield, ...	210,602	24,958	1,423	....	236,983	....	......	287	288	....	2	54,325	....	865	24
DuBois No. 2, ...		477,955	30,072	1,119	....	509,146	....	......	288	524	2	7	110,375	600	4,615	28
Totals, ...	....	688,557	55,080	2,542	....	746,129	....	......	......	812	2	9	164,700	600	5,480	52

Cascade Coal and Coke Co.																
Tyler Nos. 7 and 8, ...	Clearfield, ...	291	12,997	1,904	312,746	327,938	186,290	400	282	581	....	....	55,850	1,898	....	8
Kettle Creek Coal Mining Co.																
Kettle Creek Nos. 2, 5, 6, 8, ...	Clinton, ...	303,541	1,000	300	....	304,841	....	......	280	344	1	3	98,275	28,000	....	25
Panther Run Coal Co.																
Panther Run, ...	Jefferson	153,793	9,081	699	....	163,523	....	......	288	178	....	1	21,900	318	....	....
Jefferson Coal Co.																
Coal Glen, ...	Jefferson, ...	161,518	810	1,122	....	163,450	....	......	265	181	....	....	50,000	2,000	....	20
Pennsy Coal Co.																
Wilson No. 2, ...	Clarion, ...	26,610	1,444	237	....	28,291	....	......	305	32	....	....	2,550	650	....	5
Rogers No. 3, ...	Clarion, ...	39,258	1,421	8	....	40,687	....	......	289	40	....	....	6,850	150	....	5
Summers No. 5, ...	Jefferson, ...	50,128	1,677	13	....	51,818	....	......	308	48	....	....	3,225	850	....	5
Buckingham No. 6, ...	Jefferson, ...	27,304	15	20	....	27,339	....	......	273	28	....	....	3,125	300	....	3
Owens No. 8, ...	Clarion, ...	13,877	222	14	....	14,113	....	......	241	19	....	....	1,125	100	....	2
Totals, ...	....	157,177	4,779	292	....	162,248	....	......	......	167	....	....	16,875	2,050	....	20
McKnight Coal Co.																
McKnight, ...	Jefferson, ...	106,959	1,200	....	....	108,159	....	......	258	145	....	....	....	....	....	....
Falls Creek Coal Co.																
Hopkins, ...	Clearfield, ...	98,941	2,128	....	....	101,069	....	......	255	105	....	4	15,400	200	....	12
McConnell Coal Co.																
Beechton, ...	Jefferson, ...	16,120	150	50	....	16,320	....	......	196	43	....	....	80	1,000	500	1
McConnell, ...		79,950	....	100	....	80,050	....	......	265	63	....	....	400	2,000	1,000	7
Totals, ...	....	96,070	150	150	....	96,370	....	......	......	106	....	....	480	3,000	1,500	8
Stewart Coal Co.																
Stewart No. 2, ...	Jefferson, ...	88,085	800	200	....	89,085	....	......	272	92	1	1	892	150	....	5
Stewart No. 3, ...		2,834	....	....	....	2,834	....	......	100	12	....	....	28	100	....	1
Totals, ...	....	90,919	800	200	....	91,919	....	......	......	104	1	1	920	250	....	6
Penfield Coal and Coke Co.																
Penfield No. 1, ...	Clearfield, ...	29,997	1,724	1,037	....	32,758	....	......	276	79	....	....	....	....	....	5
Penfield No. 2, ...	Elk, ...	50,207	427	237	....	50,871	....	......	264	83	....	....	....	....	....	5
Totals, ...	....	80,204	2,151	1,274	....	83,629	....	......	......	162	....	....	....	....	....	10
Dents Run Mining Co.																
Dents Run No. 1, ...	Elk, ...	56,222	528	293	....	57,043	....	......	211	105	....	....	12,000	1,000	....	14
Clearfield Colliery Co.																
Caldwell No. 2, ...	Clearfield, ...	51,089	54	29	....	51,172	....	......	235	69	....	....	13,375	....	....	....

TABLE 2.—Continued

Names of Operators and Mines	County	Number of tons of coal shipped to market	Number of tons used at mines for steam and heat	Number of tons sold to local trade and used by employes	Number of tons used in manufacture of coke	Total production of coal in tons	Total production of coke in tons	Number of coke ovens	Number of days worked	Number of employes	Number of fatal accidents	Number of non-fatal accidents	Explosives: Number of pounds of powder used	Explosives: Number of pounds of dynamite used	Explosives: Number of pounds of permissible explosives used	Number of horses and mules
Mercer Iron and Coal Co.																
Sutton No. 9, ...	Clarion, ...	18,792	1,845	....	....	20,687	....	......	250	29	....	....	5,250	150	....	2
Sutton No. 10, ...		27,574	300	87	....	27,961	....	......	283	33	....	....	2,250	150	....	3
Totals, ...	....	46,366	2,145	87	....	48,598	....	......	......	62	....	....	7,500	300	....	5
M. Burns																
Penn No. 5, ...	Clearfield, ...	41,474	100	10	....	41,584	....	......	259	59	1	....	9,250	50	....	8
Mount Hope Coal and Coke Co.																
Mount Hope, ...	Cameron, ...	22,886	369	409	2,942	26,606	4,514	60	251	77	....	....	3,000	....	....	4
Round Top, ...		....	....	....	3,736	3,736										
Totals, ...	....	22,886	369	409	6,678	30,342	4,514	60	......	77	....	....	3,000	....	....	4
Harbison-Walker Refractories Co.																
Plane, ...	Clearfield, ...	16,014	104	....	....	16,118	....	......	267	25	....	....	5,338	....	....	2
Riverside, ...		13,631	75	....	....	13,706	....	......	292	27	....	1	4,569	....	....	4
Totals, ...	....	29,645	179	....	....	29,824	....	......	......	52	....	1	9,907	....	....	6
Baldauf Coal and Coke Co.																
Baldauf No. 1, ...	Clarion, ...	12,085	25	75	....	12,185	....	......	200	16	....	....	....	....	....	1
Cather No. 1, ...		15,258	50	20	....	15,328	....	......	213	23	....	....	....	....	....	2
Totals, ...	....	27,343	75	95	....	27,513	....	......	......	39	....	....	....	....	....	3

Bickford Fire Brick Co. Bickford,	Clearfield,	....	210	25,963	....	26,173	....	......	305	22	....	....	2,000	....	....	3
Auxiliary Coal Mining Co. Carbon No. 1,	Clearfield,	24,327	300	78	....	24,705	....	......	254	44	....	1	5,000	25	....	5
Owens Mining Co. Summerville,	Jefferson,	18,639	2,175	....	....	20,814	....	......	189	67	1	....	5,000	....	....	4
Knoxdale Coal and Coke Co. Campbell,	Jefferson,	18,822	....	100	....	18,922	....	......	99	30	....	....	....	....	....	1
Kaul and Hall King,	Elk,	18,582	....	50	....	18,632	....	......	289	32	....	....	3,985	....	....	2
George Minns, Jr. Clear Run,	Clearfield,	....	....	15,853	....	15,853	....	......	304	22	....	....	2,500	25	....	3
Co-operative Coal Co. Underwood,	Clarion,	15,115	....	....	....	15,115	....	......	259	28	....	....	....	150	....	2
Rembrandt Peale Bloomington No. 9,	Jefferson,	13,743	....	....	....	13,743	....	......	231	13	....	....	....	....	....	....
Toby Coal Mining Co. Black Diamond,	Jefferson,	13,000	100	....	....	13,100	....	......	244	24	....	....	....	....	....	2
Eagle Valley Coal Co. Eagle No. 1,	Jefferson,	13,000	100	....	....	13,100	....	......	160	40	....	1	7,500	....	....	4
Rochester Coal Co. Rochester,	Clearfield,	....	....	10,883	....	10,883	....	......	289	20	....	....	2,500	....	....	3
Verstine-Hibbard and Co. Black Prince,	Jefferson,	8,272	763	60	....	9,095	....	......	256	20	....	....	2,500	50	....	4
Pilkington and Ellery Coaldale No. 14,	Clearfield,	7,234	10	6	....	7,250	....	......	92	23	....	....	500	....	....	4
Samuel Wallwork Pancoast,	Jefferson,	5,900	....	25	....	5,925	....	......	93	32	....	....	3,000	....	....	2
Pyramid Coal Mining Co. Pyramid No. 1,	Clearfield,	1,344	....	....	....	1,344	....	......	24	21	....	....	....	....	....	2
Grand totals,	....	4,505,949	166,946	71,969	319,424	5,064,288	190,804	460	......	6,672	10	49	1,118,124	83,833	19,980	389

TABLE 2—Part 2

Names of Operators	County	Number of Boilers					Locomotives				Number of steam engines of all classes	Total horse power	Number of pumps delivering water to surface	Capacity in gallons per minute	Quantity delivered to surface per minute—gallons	Number of electric dynamos	Number of air compressors
		Cylindrical	Horse power	Tubular	Horse power	Total horse power	Gasoline	Steam	Air	Electric							
Northwestern Mining and Exchange Co.,	Jefferson, ... Clearfield, Elk	......	......	24	4,000	4,000	...	1	....	26	16	6,685	5	3,320	1,500	6	3
Shawmut Mining Co.,	Elk, Jefferson,	......	......	15	2,250	2,250	...	2	....	22	17	3,061	19	5,800	2,265	7	6
Buffalo and Susquehanna Coal and Coke Co.,	Clearfield,	......	......	16	3,628	3,628	...	....	....	6	36	4,505	8	10,896	8,699	4	7
Cascade Coal and Coke Co.,	Clearfield,	......	......	6	1,208	1,208	...	....	....	10	5	995	....	....	....	3	......
Kettle Creek Coal Mining Co.,	Clinton,	......	......	3	360	360	...	....	....	9	3	435	5	2,000	1,000	3	......
Panther Run Coal Co.,	Jefferson,	......	......	5	750	750	...	....	....	4	......	280	3	750	750	1	2
Jefferson Coal Co.,	Jefferson,	......	......	1	100	100	...	1	....	....	1	40	3	150	100	1	......
Pennsy Coal Co.,	Clarion, Jefferson.	......	......	7	850	850	...	....	....	....	7	1,050	2	200	....	2	2
McKnight Coal Co.,	Jefferson,	......	......	2	250	250	...	....	....	1	......	....	....	....	....	1	......
Falls Creek Coal Co.,	Clearfield,	......	......	2	300	300	...	....	....	....	3	200	....	....	....	......	1
McConnell Coal Co.,	Jefferson,	......	......	2	200	200	...	....	....	1	1	200	1	100	50	4	......
Stewart Coal Co.,	Jefferson,	......	......	2	220	220	...	1	....	....	3	....	2	....	....	......	1
Penfield Coal and Coke Co.,	Elk, Clearfield,	......	......	3	350	350	...	....	....	3	......	....	....	....	....	3	......
Dents Run Mining Co.,	Elk,	......	......	1	150	150	...	....	....	....	1	10	....	....	....	......	1
Clearfield Colliery Co.,	Clearfield,	......	......	....	....	....	...	....	....	1	......	....	....	....	....	1	......
Mercer Iron and Coal Co.,	Clarion,	......	......	3	160	160	...	....	....	....	2	65	1	100	20	......	2
Mount Hope Coal and Coke Co.,	Cameron,	......	......	1	50	50	...	1	....	....	2	125	....	....	....	......	......
Harbison-Walker Refractories Co.,	Clearfield,	......	......	....	....	....	...	....	....	....	......	....	1	55	55	......	......
Auxiliary Coal Mining Co.,	Clearfield,	......	......	....	....	....	...	....	....	....	......	....	1	25	25	......	......
Owens Mining Co.,	Jefferson,	......	......	2	175	175	...	....	....	....	1	20	1	850	300	......	2
Kaul and Hall,	Elk,	......	......	....	....	....	...	....	....	....	......	....	1	25	25	......	......
Eagle Valley Coal Co.,	Jefferson,	......	......	2	250	250	...	1	....	....	......	250	2	150	150	......	1

Rochester Coal Co.,	Clearfield,	......	......	....	....	....	...	....	....	....	......	....	1	175	175	......	......
Verstine-Hibbard and Co.,	Jefferson,	......	......	2	100	100	...	1	....	....	2	65	2	10	10	......	1
Pyramid Coal Mining Co.,	Clearfield,	......	......	....	....	....	...	....	....	1	......	20	....	....	....	......	......
Totals,	....	......	......	99	15,351	15,351	...	8	....	84	100	17,956	58	24,606	15,124	36	29

TABLE 3.—Number of Each Class of Employes Inside and Outside of Mines

Names of Operators	County	Inside												Outside								Grand total inside and outside
		Mine foremen	Assistant mine foremen	Fire bosses	Miners	Machine runners	Machine loaders	Machine scrapers	Drivers and runners	Doorboys and helpers	Company men	All other employes	Total inside	Superintendents	Foremen	Blacksmiths and carpenters	Engineers and firemen	Coke employes	Bookkeepers and clerks	All other employes	Total outside	
Northwestern Mining and Exchange Co.	Jefferson, Clearfield, Elk,	10	8	4	416	39	613	39	92	7	120	55	1,403	4	6	44	30	....	13	150	247	1,650
Shawmut Mining Co.,	Elk, Jefferson, ..	7	8	....	546	29	342	29	74	9	1	50	1,095	2	....	22	19	....	5	93	141	1,236
Buffalo and Susquehanna Coal and Coke Co., ...	Clearfield, ...	2	5	7	40	37	431	37	55	12	40	55	721	2	1	10	32	....	5	41	91	812
Cascade Coal and Coke Co., ...	Clearfield, ...	2	3	....	350	......	......	......	23	4	16	15	413	1	2	11	7	102	2	43	168	581
Kettle Creek Coal Mining Co., ...	Clinton, ...	1	3	....	197	2	28	2	23	6	22	4	288	1	2	8	5	....	1	39	56	344
Panther Run Coal Co.,	Jefferson, ...	1	1	....	10	4	116	4	8	6	8	....	158	1	....	4	6	....	2	7	20	178
Jefferson Coal Co., ..	Jefferson, ...	2	....	....	143	......	......	......	7	....	6	....	158	1	1	2	2	....	1	16	23	181
Pennsy Coal Co., ...	Clarion, Jefferson, ...	5	....	....	39	9	58	9	13	1	4	....	138	1	....	3	10	....	1	14	29	167
McKnight Coal Co., ..	Jefferson, ...	1	1	....	120	4	......	4	......	....	5	1	136	1	....	1	2	....	1	4	9	145
Falls Creek Coal Co.,	Clearfield, ...	1	....	....	......	......	71	......	9	1	4	2	88	1	1	1	3	....	3	8	17	105
McConnell Coal Co., ..	Jefferson, ...	2	....	....	30	4	44	4	4	....	3	....	91	2	....	2	5	....	....	6	15	106
Stewart Coal Co., ...	Jefferson, ...	2	....	....	25	6	46	6	6	1	4	....	96	1	....	1	1	....	1	4	8	104
Penfield Coal and Coke Co., ...	Elk, Clearfield, .	2	2	....	118	......	......	......	7	....	....	3	132	2	....	3	4	....	5	16	30	162
Dents Run Mining Co.,	Elk, ...	1	....	....	70	6	6	......	8	1	2	....	94	....	....	1	1	....	1	8	11	105
Clearfield Colliery Co.,	Clearfield, ...	1	....	....	55	2	......	2	2	1	1	....	64	1	....	1	....	....	....	3	5	69
Mercer Iron and Coal Co., ...	Clarion, ...	2	....	....	22	3	17	3	5	....	2	....	54	....	....	1	2	....	1	4	8	62
M. Burns, ...	Clearfield, ...	1	1	....	50	......	......	......	2	....	1	....	55	1	1	....	....	....	1	1	4	59
Mount Hope Coal and Coke Co., ...	Cameron, ...	1	....	....	30	......	......	......	3	....	1	....	35	1	....	1	3	30	1	6	42	77

Harbison-Walker Refractories Co., ...	Clearfield, ...	2	....	....	39	......	......	......	3	....	1	....	45	2	....	....	....	....	2	3	7	52
Baldauf Coal and Coke Co., ...	Clarion, ...	2	1	....	30	......	......	......	3	....	....	....	36	2	....	....	....	....	....	1	3	39
Bickford Fire Brick Co., ...	Clearfield, ...	1	....	....	16	......	......	......	1	....	1	1	30	1	1	....	....	....	....	....	2	22
Auxiliary Coal Mining Co.	Clearfield, ...	1	....	....	35	......	......	......	3	....	....	....	39	1	....	1	....	....	1	2	5	44
Owens Mining Co., ...	Jefferson, ...	1	....	....	6	6	30	6	4	1	3	....	57	1	....	1	4	....	1	3	10	67
Knoxdale Coal and Coke Co., ...	Jefferson, ...	1	....	....	25	......	......	......	1	....	....	1	28	1	1	....	....	....	....	....	2	30
Kaul and Hall, ...	Elk, ...	1	....	....	25	......	......	......	2	....	....	....	28	1	....	1	....	....	1	1	4	32
George Minns, Jr., ...	Clearfield, ...	1	....	....	4	1	10	1	2	....	....	....	19	1	....	1	....	....	....	1	3	22
Co-operative Coal Co.,	Clarion, ...	1	....	....	24	......	......	......	1	....	1	....	27	....	....	....	....	....	1	....	1	28
Rembrandt Peale, ...	Jefferson, ...	1	....	....	10	......	......	......	1	....	....	....	12	....	....	....	....	....	....	1	1	13
Toby Coal Mining Co.,	Jefferson, ...	1	....	....	17	......	......	......	1	....	3	....	22	1	1	....	....	....	....	....	2	24
Eagle Valley Coal Co.,	Jefferson, ...	1	....	....	......	2	25	2	2	....	3	....	35	1	....	1	2	....	1	....	5	40
Rochester Coal Co., ..	Clearfield, ...	1	....	....	12	......	......	......	2	....	2	....	17	1	....	....	....	....	1	1	3	20
Verstine-Hibbard and Co., ...	Jefferson, ...	1	....	....	......	2	10	2	1	....	....	....	16	1	....	1	1	....	1	....	4	20
Pilkington and Ellery,	Clearfield, ...	1	....	....	20	......	......	......	1	....	1	....	23	....	....	....	....	....	....	....	......	23
Samuel Wallwork, ...	Jefferson, ...	1	....	....	25	......	......	......	2	....	2	....	30	1	....	....	....	....	1	....	2	32
Pyramid Coal Mining Co., ...	Clearfield, ...	1	....	....	15	......	......	......	1	....	1	....	18	....	....	1	....	....	1	1	3	21
Totals, ...	....	63	33	11	2,564	156	1,847	150	372	50	258	187	5,691	38	17	123	139	132	55	477	981	6,672

TABLE 3.—Part 2

Names of Operators	County	Average Number of Days Worked												
		January	February	March	April	May	June	July	August	September	October	November	December	Total
Northwestern Mining and Exchange Co.,	Clearfield, Elk, Jefferson,	24	20	18	23	24	24	24	24	24	24	22	15	266
Shawmut Mining Co.,	Elk, Jefferson,	21	18	19	18	17	17	23	24	23	25	22	23	250
Buffalo and Susquehanna Coal and Coke Co.,	Clearfield,	24	24	23	23	24	25	25	25	24	27	23	21	288
Cascade Coal and Coke Co.,	Clearfield,	26	22	24	24	25	25	25	25	25	26	12	23	282
Kettle Creek Coal Mining Co.,	Clinton,	25	22	21	25	25	24	21	24	25	26	23	19	280
Panther Run Coal Co.,	Jefferson,	26	16	25	20	25	25	25	26	25	26	24	25	288
Jefferson Coal Co.,	Jefferson,	24	23	25	18	22	20	22	23	22	23	21	22	265
Pennsy Coal Co.,	Clarion, Jefferson,	23	23	24	22	22	24	22	24	25	26	22	25	282
McKnight Coal Co.,	Jefferson,	26	22	21	18	17	20	24	25	23	27	21	14	258
Falls Creek Coal Co.,	Clearfield,	26	18	10	10	19	25	24	26	24	26	23	24	255
McConnell Coal Co.,	Jefferson,	13	11	11	20	15	20	23	23	23	24	24	23	230
Stewart Coal Co.,	Jefferson,	21	21	20	24	25	20	21	24	22	24	24	26	272
Penfield Coal and Coke Co.,	Clearfield, Elk,	25	24	25	19	22	22	22	22	24	25	20	20	270
Dents Run Mining Co.,	Elk,	26	21	24	12	10	21	22	9	22	13	15	16	211
Clearfield Colliery Co.,	Clearfield,	25	22	21	14	16	19	13	20	18	27	21	19	235
Mercer Iron and Coal Co.,	Clarion,	25	22	25	28	24	23	22	21	23	24	20	17	266
M. Burns,	Clearfield,	25	23	22	20	24	18	25	22	21	22	20	17	259
Mount Hope Coal and Coke Co.,	Cameron,	27	24	24	26	22	17	13	18	16	17	23	26	251
Harbison-Walker Refractories Co.,	Clearfield,	24	23	24	23	23	22	22	24	25	25	22	22	279
Baldauf Coal and Coke Co.,	Clarion,	8	12	12	18	21	22	24	23	21	17	17	14	209
Bickford Fire Brick Co.,	Clearfield,	27	24	25	25	26	25	26	26	25	27	24	25	305
Auxiliary Coal Mining Co.,	Clearfield,	24	22	19	18	22	17	24	23	21	21	21	22	254
Owens Mining Co.,	Jefferson,	......	7	18	18	22	18	......	17	24	22	20	23	189
Knoxdale Coal and Coke Co.,	Jefferson,	......	......	......	......	......	......	18	......	14	26	22	24	99
Kaul and Hall,	Elk,	21	24	22	25	26	25	25	25	25	26	23	22	289
George Minns, Jr.,	Clearfield,	27	24	26	25	25	25	25	26	25	26	24	26	304
Co-operative Coal Co.,	Clarion,	5	18	25	25	26	22	16	25	22	27	25	23	259
Rembrandt Peale,	Jefferson,	26	24	22	21	24	21	22	25	23	24	24	25	281
Toby Coal Mining Co.,	Jefferson,	24	21	24	14	24	23	24	23	22	22	13	10	244
Eagle Valley Coal Co.,	Jefferson,	......	......	......	......	......	20	25	24	23	25	24	19	160
Rochester Coal Co.,	Clearfield,	25	23	25	25	26	24	24	24	24	24	23	22	289
Verstine-Hibbard and Co.,	Jefferson,	20	24	25	24	27	23	14	26	22	20	16	15	256
Pilkington and Ellery,	Clearfield,	25	23	24	20	......	......	......	......	......	......	......	......	92
Samuel Wallwork,	Jefferson,	......	......	......	......	......	......	......	......	22	25	24	22	93
Pyramid Coal Mining Co.,	Clearfield,	......	......	......	......	......	......	......	......	......	......	......	24	24

TABLE 4.—Fatal Accidents Inside and Outside of Mines

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Number of widows	Number of orphans	Name of Mine	County	Nature and Cause of Accident in Brief
Jan. 8	**Charles Radzick,**	**Polish,**......	**Machine runner,**	**46**	**M.**	1	4	**DuBois No. 2,** ..	**Clearfield,**......	Fatally injured by fall of roof at face of entry while cutting with a machine. The roof was dangerous and required much care in securing it with timber for safety. Died in DuBois hospital February 7.
Feb. 6	**Louie Catkosky,**	**Polish,**......	**Miner,**	**22**	**S.**	....	....	**Eriton,**	**Clearfield,**......	Instantly killed by fall of roof on entry near face. The roof is composed of coal and fire clay and is very dangerous. Cross timber was being used to secure the roof, but had not been kept close enough to the face, being 24 feet away. The accident occurred at night.
March 5	**John Conroy,**	**Scotch,**	**Miner,**	**56**	**S.**	....	....	**Penn No. 5,**	**Clearfield,**......	Fatally injured by fall of coal. He was extracting entry pillars and was undermining the coal when it fell upon him. His partner said that one sprag had been set under the coal to prevent it from falling. Died in Clearfield hospital April 20.
April 11	**Bauldof Melo,**	**Italian,**.....	**Miner,**	**24**	**S.**	....	....	**Browns Run No. 42.**	**Elk,**............	Instantly killed by fall of coal at face of pillar. He and his partner were undermining the coal and failed to set sprag to keep it from falling. His partner was preparing a shot of powder when the coal fell. Melo had only worked at mining about four months, but his partner was an experienced miner.
June 9	**Patrick J. Meehan,** ..	**Irish,**	**Loader,**	**70**	**M.**	1	....	**Eriton,**	**Clearfield,**.....	Fatally injured by being crushed between side of cage and loaded car at foot of shaft. Ten persons were being lowered in the shaft on the cage and as they landed at foot of shaft a trip of cars that was being pushed towards the shaft by an electric motor pushed some cars that stood near the shaft onto the cage, and Meehan was caught by car.

TABLE 4—Continued

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Number of widows	Number of orphans	Name of Mine	County	Nature and Cause of Accident in Brief
Aug. 26	Robert Rosko, ...	Slavonian,..	Miner, ...	41	M.	1	2	Kettle Creek No. 2.	Clinton,........	Killed by mine cars on haulage road. He was traveling on the haulage road instead of the regular traveling road from the No. 2 mine. He was alone when the accident occurred and the motorman and spragger did not see him.
Sept. 8	James Kelley, ...	Scotch, ...	Miner, ...	46	M.	1	2	Stewart No. 2, ..	Jefferson,.......	Instantly killed by fall of roof in his working place while either sounding the roof or preparing to set a prop under the stone. He and his son were removing a room pillar. The roof immediately over the seam of coal is sand rock, which is dangerous owing to the frequency of slips or water breaks.
16	Ed. Korulavich, ...	Polish,......	Miner, ...	34	S.	....	....	DuBois No. 2, ..	Clearfield, ...	Instantly killed by fall of roof on entry near face. The roof had not been carefully timbered. A clay vein had just been cut near the face, which made the roof more dangerous than usual.
Oct. 3	Steve Washusky, ...	Polish,......	Miner, ...	23	S.	....	....	Summerville, ...	Jefferson,......	Instantly killed by fall of draw slate at face of room. The coal seam is overlaid with a draw-slate averaging about six to eight inches thick. The slate is taken down for safety as it is difficult to secure it with timber. He neglected to take it down and did not secure it with timber temporarily while loading out the coal from under it.
Dec. 9	George Gleason, ...	American, ..	Miner, ...	27	M.	1	7	Byrne No. 21, ..	Elk,............	Instantly killed by fall of roof on entry while taking a machine-cut of coal off the side of the entry pillar. They had fired a blast in the coal and upon returning to the place to ascertain the result of the blast, Gleason was caught by a stone that fell off the side.

TABLE 5.—Non-Fatal Accidents Inside and Outside of Mines

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Name of Mine	County	Nature and Cause of Accident in Brief
Jan. 2	Steve Pura,	Slavonian,	Loader,	32	S.	Ramsay No. 2,	Jefferson,	Leg broken by fall of roof at face of room.
3	Frank McClellan,	American,	Runner,	41	M.	West Clarion Nos. 1-6-8,	Jefferson,	Leg broken by mine cars on entry.
6	John Sharkey,	American,	Runner,	21	S.	Eriton,	Clearfield,	Face severely burned by powder flame. A can of powder that had been placed on side of road was ignited by electric current.
7	Bartek Petonyek,	Slavonian,	Laborer,	28	M.	Kettle Creek,	Clinton,	Leg broken by mine cars on tipple. Outside.
9	John Wring,	English,	Loader,	35	S.	Hopkins,	Clearfield,	Ankle severely injured by fall of coal at face of pillar.
11	John Boboski,	Russian,	Loader,	40	M.	Eriton,	Clearfield,	Face burned and lacerated by blast in coal at face of room.
21	Alexander Machiski,	Lithuanian,	Loader,	55	S.	Hopkins,	Clearfield,	Shoulder and collar bones broken by fall of coal at face of entry.
22	William Klechner,	American,	Driver,	28	M.	Hopkins,	Clearfield,	Back severely injured by fall of roof on roadway of room.
Feb. 6	Charles Berno,	Slavonian,	Miner,	27	S.	Eriton,	Clearfield,	Leg broken by fall of roof near face in entry.
7	Joseph Kukiski,	Polish,	Miner,	37	S.	Byrne No. 21,	Elk,	Leg broken by fall of roof at face of entry.
8	Frank Milburn,	American,	Driver,	25	M.	Stewart No. 2,	Jefferson,	Shoulder severely injured by being squeezed between top of loaded car and roof on entry.
14	Andrew Ferrence,	Slavonian,	Miner,	38	M.	Panther Run,	Jefferson,	Ankle severely injured by fall of coal at face of room.
March 7	George Harvey,	Scotch,	Company man,	37	M.	Eriton,	Clearfield,	Toe broken by timber falling on it while he was timbering in the mine.
11	Andy Ripko,	Slavonian,	Miner,	40	M.	Kettle Creek,	Clinton,	Leg fractured by fall of coal at face of room.
April 8	John Watson,	Scotch,	Loader,	54	M.	DuBois No. 2,	Clearfield,	Ribs fractured by falling against car brake at face of room.
11	David Morris,	Scotch,	Loader,	21	S.	DuBois No. 2,	Clearfield,	Leg severely injured by fall of coal at face of room.
18	Andy Akofsky,	Russian,	Miner,	32	M.	Eriton,	Clearfield,	Face and hands severely cut by premature blast of dynamite at face of room.

TABLE 5—Continued

Date of accident		Name of Person	Nationality	Occupation	Age	Married or single	Name of Mine	County	Nature and Cause of Accident in Brief
April	28	Foster Moore, ...	American, ..	Blacksmith, ...	55	M.	DuBois No. 2, ...	Clearfield, ...	Eye severely cut by piece of steel from anvil and had to be removed. Outside.
	30	Martin Colson, ...	Swedish,....	Miner, ...	34	M.	Dagus No. 1, ...	Elk,............	Leg broken while riding on coal-cutting machine.
May	3	John M. Strandberg,..	Swedish,....	Carpenter, ...	42	M.	Eureka, ...	Elk,............	Injured internally by falling off scaffold at air-shaft. Outside.
	7	Louie Simbeck, ...	American, ..	Miner, ...	41	M.	Eriton, ...	Clearfield, ...	Body injured by fall of coal at face of room.
	13	John Buek, ...	Slavonian,..	Miner, ...	42	M.	Riverside, ...	Clearfield, ...	Leg broken by fall of roof at face of entry.
June	14	Joseph Sledge, ...	Lithuanian,	Loader, ...	36	M.	Eriton, ...	Clearfield, ...	Compound fracture of leg by fall of coal at face of room.
	16	Glenn Haufman, ...	American, ..	Runner, ...	19	S.	Eriton, ...	Clearfield, ...	Leg broken by cars on entry.
	19	Robert Gray, Jr., ...	American, ..	Runner, ...	21	S.	Eriton, ...	Clearfield, ...	Injured internally and leg fractured by fall of roof.
	25	Frank Matis, ...	Italian, ...	Scraper, ...	38	M.	Eriton, ...	Clearfield, ...	Leg severely injured by fall of coal at face of room.
	26	Peter Acusso, ...	Italian, ...	Loader, ...	28	S.	Eriton, ...	Clearfield, ...	Skull fractured and face and neck burned by blast in room.
July	8	Adam Krudok, ...	Russian, ...	Loader, ...	33	M.	Eriton, ...	Clearfield, ...	Leg fractured by fall of coal at face of room.
	10	James McDermott, ...	American, ..	Driver, ...	41	M.	Carbon No. 1, ...	Clearfield, ...	Body crushed by mule falling upon him.
	17	Constantine Gezzi, ...	Austrian, ..	Miner, ...	25	S.	Ramsay No. 2, ...	Jefferson,.......	Back broken by fall of roof on entry.
Aug.	2	Joseph Mosano, ...	Austrian, ..	Miner, ...	26	S.	Ramsay No. 2, ...	Jefferson,.......	Face and arm injured by blast in room.
	4	Jeck Viviani, ...	Italian, ...	Loader, ...	25	S.	Eriton, ...	Clearfield, ...	Leg broken by fall of coal in his working place.
	5	William Lilia, ...	Swedish,....	Company man, ..	48	M.	Eureka, ...	Elk,............	Leg broken by sheave wheel on main haulage-way.
	6	Robert Marley, ...	English, ...	Miner, ...	44	M.	DuBois No. 2, ...	Clearfield, ...	Body severely injured by fall of roof in entry face.
	8	Rubin Gutteridge, ...	English, ...	Loader, ...	48	M.	DuBois No. 2, ...	Clearfield, ...	Ankle severely injured by fall of roof at face of room.
	14	Norman Humes, ...	American, ..	Runner, ...	21	S.	Eriton, ...	Clearfield, ...	Hips severely injured by being crushed between electric locomotive and machine truck.

Aug.	25	Joseph Toveski, ...	Slavonian, ..	Miner, ...	24	M.	Ramsay No. 2, ...	Jefferson,......	Face burned and lacerated by blast at face of room.
	26	E. E. King, ...	American, ..	Loader, ...	27	S.	DuBois No. 1, ...	Clearfield, ...	Hand and arm severely burned by the flame of a premature blast in room.
	29	Alfred Johnson, ...	American, ..	Driver, ...	19	S.	DuBois No. 1, ...	Clearfield, ...	Hand severely injured by mine cars.
Sept.	11	Joseph Stanley, ...	Russian, ...	Miner, ...	22	S.	Eriton, ...	Clearfield, ...	Hips crushed by being caught between car and coal pillar on entry.
	17	Andrew Clarkson, ...	American, ..	Company man, ..	48	M.	DuBois No. 2, ...	Clearfield, ...	Injured by fall of roof on entry while removing timber.
	26	Jacob Dinger, ...	German, ...	Miner, ...	50	M.	Eagle No. 1, ...	Jefferson,......	Ribs broken by fall of coal at face of room.
	26	Stanley Reasook, ...	Polish,......	Miner, ...	40	M.	Eriton, ...	Clearfield, ...	Hand severely injured by premature explosion of a detonating cap in his room.
Oct.	21	William Carlson, ...	Swedish,....	Loader, ...	24	S.	Hopkins, ...	Clearfield, ...	Leg severely injured by fall of coal at face of pillar.
	25	Mike Kromko, ...	Slavonian,..	Miner, ...	20	S.	Kettle Creek, ...	Clinton,.........	Leg broken by fall of roof at face of room.
	31	Thomas Hart, ...	American, ..	Miner, ...	43	M.	Eriton, ...	Clearfield, ...	Body severely injured by fall of coal at face of pillar.
Nov.	7	Curtis May, ...	American, ..	Runner, ...	24	M.	Eriton, ...	Clearfield, ...	Wrist broken by being caught under derailed electric locomotive on entry.
	12	Thomas Conley, ...	American, ..	Runner, ...	19	S.	DuBois No. 2, ...	Clearfield, ...	Body crushed between loaded car and roof of entry.
	26	James Bruce, ...	Scotch, ...	Runner, ...	18	S.	Eriton, ...	Clearfield, ...	Hand injured by mine cars on entry.

CONDITION OF MINES

NORTHWESTERN MINING AND EXCHANGE COMPANY

Eriton—Ventilation and drainage very good. The mine has three escape shafts, two of which are provided with stairs. The shafts also serve as outlets for the air currents, reducing the resistance and increasing the total volume of air from the fan.

Dagus No. 1.—In good condition as to ventilation and drainage. The mine workings were connected to the Earlyville shaft during the year. This shaft was sunk years ago and was full of water. The water has been drained off and the opening serves as an inlet for a portion of the mine.

Dagus No. 3.—Ventilation and drainage good. A new drift opening has been made into this seam of coal, the opening being made from Limestone hollow. The hollow is crossed by a suspension bridge over which the product of the mine will be hauled, passing through the No. 3 mine to the tipple.

Dagus No. 26.—In fair condition as to ventilation and drainage.

Eureka—In good condition as to ventilation and drainage.

West Clarion Nos. 1, 6 and 8.—In very fair condition as to ventilation and drainage. The air currents were rather weak in the No. 8 section and I requested that a fan be installed to ventilate this part.

Clarion No. 4.—In very fair condition as to ventilation and drainage.

SHAWMUT MINING COMPANY

Shawmut No. 5.—Ventilation and drainage good.

Shawmut No. 10.—In fair condition as to ventilation and drainage.

Yates—In fair condition as to ventilation and drainage. This is a small mine from which coal is mined for the Shawmut Fire Brick Works.

Ramsay Nos. 1 and 2.—Ventilation good. Drainage was defective in some portions of the mine.

Byrne No. 21.—In very fair condition as to ventilation and drainage. Some portions of the mine would be improved by stronger air currents, especially where pillars are being removed.

Cardiff No. 41.—Ventilation and drainage very fair. I made some suggestions regarding the ventilating air currents, which if carried out, will improve the condition of the mine.

Browns Run No. 42.—The volume of air provided by the ventilator was ample, but was being poorly conducted to the workings. This, I am informed, has been remedied to some extent.

BUFFALO AND SUSQUEHANNA COAL AND COKE COMPANY

DuBois No. 1.—In good condition as to ventilation and drainage. A large percentage of the production of this mine is being mined from pillars, as about all the solid coal has been developed.

DuBois No. 2.—In good condition as to ventilation and drainage.

CASCADE COAL AND COKE COMPANY

Tyler No. 7.—In good condition as to ventilation and drainage.

Tyler No. 8.—The mine workings are in a healthy condition. The air currents are ample and the drainage is very good.

KETTLE CREEK COAL MINING COMPANY

Kettle Creek Nos. 2, 5, 6 and 8.—The several openings are all provided with fans for ventilation and ample air is circulating through the workings to keep them in healthy condition. Drainage good. The right section of the No. 2 mine was flooded for a short time, owing to heavy surface rains overpowering the pumps.

PANTHER RUN COAL COMPANY

Panther Run—In good condition as to ventilation and drainage.

JEFFERSON COAL COMPANY

Coal Glen—In fairly good condition as to ventilation and drainage.

PENNSY COAL COMPANY

Wilson No. 2.—In fair condition as to ventilation and drainage.

Rogers No. 3.—The ventilation was not very good owing to poorly built stoppings and doors, but it was improved during the latter part of the year. Drainage satisfactory.

Summers No. 5.—The ventilation was in very fair volume and was very well conducted to the workings. Electric chain machines have been introduced for cutting coal. The drainage throughout the mine was good.

Buckingham No. 6.—A new drift opening made during the year. The ventilation is produced by furnace. Drainage good.

Owens No. 8.—In fair condition as to ventilation and drainage.

McKNIGHT COAL COMPANY

McKnight—In good condition as to ventilation and drainage.

FALLS CREEK COAL COMPANY

Hopkins—In very fair condition as to ventilation and drainage.

McCONNELL COAL COMPANY

McConnell—In good condition as to ventilation and drainage.

Beechton—A new drift opening into the Lower Freeport seam of coal. The condition of the mine as to ventilation and drainage was not good, and owing to the lack of air the men were forbidden to enter the mine until the law was complied with.

STEWART COAL COMPANY

Stewart No. 1.—Idle.

Stewart No. 2.—Ventilation and drainage good.

Stewart No. 3.—A new drift opening in the Lower Freeport seam of coal. Only a very few persons were at work in the mine when inspected. The ventilation was being provided by temporary means.

PENFIELD COAL AND COKE COMPANY

Penfield No. 1.—In good condition as to ventilation and drainage.

Penfield No. 2.—In very fair condition as to ventilation and drainage.

DENTS RUN MINING COMPANY

Dents Run No. 1.—In very fair condition as to ventilation and drainage.

Dents Run No. 2.—Idle.

CLEARFIELD COLLIERY COMPANY

Caldwell No. 2.—Ventilation good. Drainage fair. A new opening was made during the year, to be used for a second way of egress and for drainage.

MERCER IRON AND COAL COMPANY

Sutton No. 9.—Ventilation good. Drainage fair.

Sutton No. 10.—Ventilation and drainage in fairly good condition.

M. BURNS

Penn No. 5.—The ventilation was not very good at the face of the inner workings, and I requested that it be improved, and also the drainage.

MOUNT HOPE COAL AND COKE COMPANY

Mount Hope—In fairly good condition as to ventilation and drainage.

Round Top—In fair condition. The main pillars were being extracted. The mine has been idle the greater part of the year. Formerly operated by the Emporium Iron Company.

HARBISON-WALKER REFRACTORIES COMPANY

Plane—In good condition as to ventilation and drainage.

Riverside—Ventilation in good condition. Drainage was not good in some parts of the mine.

BALDAUF COAL AND COKE COMPANY

Baldauf No. 1.—Ventilation and drainage fairly good.

Cather No. 1.—The ventilation was not up to the requirements and I requested that it be improved. Drainage good.

BICKFORD FIRE BRICK COMPANY

Bickford—A small mine employing only a few persons. In very good condition as to ventilation and drainage.

AUXILIARY COAL MINING COMPANY

Carbon No. 1.—Ventilation only fair, owing to the lack of power. I requested that additional power be provided, and they promised to install a fan to take the place of the furnace now in use. Drainage very good.

OWENS MINING COMPANY

Summerville—In good condition as to ventilation and drainage.

KNOXDALE COAL AND COKE COMPANY

Campbell—A new drift mine in the Lower Freeport seam of coal. In very fair condition as to ventilation and drainage.

KAUL AND HALL

King—Worked out and abandoned during the year.

GEORGE MINNS, JR.

Clear Run—In good condition as to ventilation and drainage.

CO-OPERATIVE COAL COMPANY

Underwood—A new drift opening made during the year by A. H. Underwood, who operated the mine for a few months. It was taken over by the present company, and is being operated on the co-operative plan. In good condition.

REMBRANDT PEALE

Bloomington No. 9.—A few persons have been employed during the year extracting the main entry pillars. Abandoned.

TOBY COAL MINING COMPANY

Black Diamond—In fair condition as to ventilation and drainage.

EAGLE VALLEY COAL COMPANY

Eagle No. 1.—A new drift opening in the Lower Freeport seam of coal. The coal is cut by the puncher type of machine, operated by compressed air. The mine is ventilated by a furnace and is in good condition.

ROCHESTER COAL COMPANY

Rochester—In very fair condition. The product of this mine is used for domestic purposes, none being shipped by rail. Only a few persons are employed.

VERSTINE-HIBBARD AND COMPANY

Black Prince—In very fair condition as to ventilation and drainage. Very little progress has been made in development, owing to the faulty condition of the territory.

PILKINGTON AND ELLERY

Coaldale No. 14.—Worked-out and abandoned.

SAMUEL WALLWORK

Pancoast—A new drift opening made during the year, from which coal is being mined for engine use on the B. and A. V. Division of the Pennsylvania Railroad. In fair condition for a new operation.

PYRAMID COAL MINING COMPANY

Pyramid No. 1.—A new drift mine, in the D or Lower Freeport seam of coal, located on the New York Central and Hudson River

Railroad near the town of Curwensville. When inspected only a few persons were employed in heading work, and, although a fan had been installed to provide ventilation, it was not being used, as they were waiting for a connection to be made to the fan drift.

IMPROVEMENTS

NORTHWESTERN MINING AND EXCHANGE COMPANY

The company has under construction at Hellen Mills, Elk County, a central electrical power plant, for the purpose of furnishing current to all its mines located in Elk and Jefferson Counties, which are the West Clarion, Clarion No. 4 and the mines located in Kyler Hollow.

The plant will be housed in a building 80 by 100 feet, divided into two compartments, one for the generator room and the other for the boiler room, absolutely fireproof throughout. The power plant when completed will develop 2,000 kilowatts, but for the present will only use 1,000 kilowatts, which will consist of two high pressure turbines, direct connected to two alternating generators of 500 kilowatts each. Current will be generated at 2,300 volts and transformed at the power plant, and will be transmitted to the mines at 11,000 volts. At the different mines motor generator sets will be installed and the 11,000 volts will then be transformed to 2,300 volts, and the motors of the motor generator sets will be operated at this voltage, generating direct current for mine use at a voltage of 250.

Steam will be furnished from three Sterling boilers of 250 horse power each, at a gauge pressure of 200 pounds. The plant will be equipped with a brick stack 8 feet in diameter inside and 175 feet high, which will be large enough to accommodate three additional boilers. The water supply will be taken from Bear Run for the boilers and condensers; the generator will run condensing. Coal for the plant will be furnished from a small mine opened near the plant, and will be conveyed by aerial tramway direct from the mine to the boiler room. The plant will be completed during the early part of the year 1914.

Eriton—The electric equipment and arrangement has been improved, and put more in conformity with the law. The main feed cables were removed from the main hoisting shaft, and conveyed through two drill holes into the mine; their carrying capacity also was increased to 3,000,000 circular mills. Three additional switchboards were added to the equipment in the power house, thereby making three separate circuits for the mine.

A new concrete oil house was built on the surface, size 14 by 30 feet. The dumping arrangements on the tipple were improved by raising the weigh-pan sufficiently to allow the coal to pass off more rapidly and thoroughly when lowered.

The safety conditions of the main haulageways at the foot of shaft were improved by the removal of the wood roof support for a distance of 400 feet. The wood was replaced with steel I beams, size 8 by 4 inches with ¼ inch sheet steel covering over the beams, the I beams being placed two feet apart and supported on the sides either by brick piers or by cutting the ends over the solid sides of the entry, making a very neat and durable support.

BUFFALO AND SUSQUEHANNA COAL AND COKE COMPANY

DuBois No. 2.—Two tubular boilers of 250 horse power each were added to the power plant; also one additional electric feed cable from the generator to the interior of the mine, passing through a drill hole from the surface, increasing the millage capacity of the cables to prevent heating, and making an additional circuit for the mine workings.

The mine stable was made fireproof as required by law. Two additional pumps were added to the drainage equipment, one Cameron, size 12 by 18 by 22 inches, capacity 600 gallons per minute, and one Jeanesville, duplex, size 8 by 12 by 12 inches, capacity 500 gallons per minute.

PENFIELD COAL AND COKE COMPANY

Penfield No. 1.—A new opening was made into the main body of the undeveloped coal, cutting off the long room entries, which were driven on a heavy grade unsuitable for haulage for motors. A new haulageway was made over the surface about one mile in length, giving a much more desirable grade for haulage.

A fan was also installed on a parallel entry to the new drift to provide ventilation for the section on the mine workings.

PROSECUTIONS FOR VIOLATION OF THE MINING LAWS

April—Information was made against Emetio Christo, miner, Browns Run No. 42 mine, Shawmut Mining Company, for violation of Section nine of Article four, and Rule one of Article twenty-five, of the Act of June 9, 1911. He disobeyed the orders of the mine foreman and failed to sprag the coal that he and his partner, Bauldof Melo, were undermining, which resulted in the death of Melo.

The information was made before Justice Dixon, Caledonia, who, after hearing the evidence, dismissed the case. Defendant paid the costs of prosecution, amounting to fifteen dollars.

MINE FOREMEN'S, ASSISTANT MINE FOREMEN'S AND FIRE BOSSES' EXAMINATIONS

The annual examination of applicants for certificates of qualification as mine foremen, assistant mine foremen and fire bosses was held in Sparks Hall, DuBois, May 6, 7 and 8. The Board of Examiners was composed of Elias Phillips, Inspector; George L. Miller, Operator; and J. E. Brown, Miner.

There were 28 applicants for certificates as mine foremen and assistant mine foremen, and 16 applicants for certificates as fire bosses. The following persons passed a satisfactory examination and were granted certificates:

MINE FOREMEN

First Grade

William Wallace Martz, Daniel J. Lewis, Jefferson Line; Patrick F. Costello, DuBois; Amandus Olson, Helvetia.

MINE FOREMEN

Second Grade

David Bell, Ramsaytown; William Maloney, Force.

ASSISTANT MINE FOREMEN

John M. Bain, Jacob M. King, George Griffiths, DuBois.

FIRE BOSSES

Henry H. Ledger, John R. Crawford, Mark Matthews, DuBois; George Brent, William Pendleton, Helvetia.

FIFTH DISTRICT

FAYETTE COUNTY

Uniontown, Pa., February 16, 1914.

Hon. James E. Roderick, Chief of Department of Mines:

Sir: I have the honor to transmit herewith my report of the Fifth Bituminous District for the year ending December 31, 1913, in compliance with the provisions of the Act of Assembly of June 9, 1911.

The operators have shown special interest in improving living conditions for their workmen, as well as increased anxiety and more determined effort to reduce accidents. Nothing of unusual interest occurred in the district during the year.

Respectfully submitted,

I. G. ROBY, Inspector.

SUMMARY OF STATISTICS

Number of mines,	44
Number of mines in operation,	44
Number of tons of coal shipped to market,	287,791
Number of tons used at mines for steam and heat,	124,535
Number of tons sold to local trade and used by employes,	72,447
Number of tons used in the manufacture of coke,	6,578,053
Number of tons of coal produced,	7,062,826
Number of tons of coke produced,	4,421,739
Number of coke ovens,	8,064
Number of coke ovens in operation,	6,597
Number of tons of coal produced by pick mining,	6,307,274
Number of tons produced by compressed air machines,	635,033
Number of tons produced by electrical machines,	120,519
Number of persons employed inside of mines,	4,740
Number of persons employed outside, including coke workers,	2,666
Number of persons employed at manufacture of coke,	1,361
Number of fatal accidents inside of mines,	10
Number of fatal accidents outside,	....
Number of non-fatal accidents inside of mines,	16
Number of non-fatal accidents outside,	1
Number of tons of coal produced per fatal accident inside,	706,283
Number of tons produced per fatal accident outside,	....
Number of tons produced per fatal accident inside and outside,	706,283
Number of persons employed per fatal accident inside,	474
Number of persons employed per fatal accident outside,	....
Number of persons employed per fatal accident inside and outside,	741
Number of persons employed per non-fatal accident inside,	296
Number of persons employed per non-fatal accident outside,	2,666
Number of persons employed per non-fatal accident inside and outside,	436
Number of wives made widows,	8
Number of children made orphans,	18
Number of steam locomotives used inside of mines,	....
Number of steam locomotives used outside,	10
Number of compressed air locomotives used inside,	11
Number of compressed air locomotives used outside,	....
Number of electric motors used inside,	10
Number of electric motors used outside,	....
Number of gasoline locomotives used inside,	....
Number of fans in use.	37
Number of furnaces in use,	6
Number of gaseous mines in operation,	27
Number of non-gaseous mines in operation,	17
Number of new mines opened,	....
Number of old mines abandoned,	....

TABLE A

PRODUCTION OF COAL

Names of Operators	Tons
H. C. Frick Coke Company,	3,992,413
Oliver and Snyder Steel Company,	924,129
W. J. Rainey,	696,533
Lincoln Coal and Coke Company,	404,500
Atlas Coke Company,	204,434
Waltersburg Coke Company,	157,290
United Connellsville Coke Company,	125,269
Evans Coal and Coke Company,	85,968
Stewart Iron Company, Limited,	83,124
Rich Hill Coke Company,	79,579
Brownfield Connellsville Coke Company,	61,000
Olive Coal Company,	35,748
Sunshine Coal and Coke Company,	33,078
Cheat Haven Coal and Coke Company,	29,180
Penn Coke Company,	29,000
Smithfield Coal and Coke Company,	24,200
Southern Connellsville Coke Company,	23,370
H. R. Sackett Coal and Coke Company,	14,700
Hogsett Coal and Coke Company,	12,960
Republic Iron and Steel Company,	12,378
Ada Coke Company,	11,998
John A. Whyel and Son,	11,850
Johnson Fuel Company,	6,960
Fancy Hill Coal Works,	3,165
Total,	7,062,826

Production by Counties

Fayette,	7,062,826

TABLE B.—Fatal and non-fatal accidents inside and outside of mines; number of tons of coal produced per accident; number of persons employed; number employed per accident

Names of Operators	Fatal Accidents			Non-Fatal Accidents			Tons of coal produced per fatal accident inside	Tons of coal produced per non-fatal accident inside	Number of employes inside	Number of employes outside	Total number of employes	Number of employes inside per fatal accident	Number of employes outside per fatal accident	Number of employes inside per non-fatal accident	Number of employes outside per non-fatal accident
	Inside	Outside	Total	Inside	Outside	Total									
H. C. Frick Coke Co.,	5	......	5	1	......	1	798,483	3,992,413	2,356	1,404	3,760	471	....	2,356	....
Oliver and Snyder Steel Co.,	3	......	3	5	1	6	308,043	184,825	789	339	1,128	246	....	148	339
W. J. Rainey,	1	......	1	1	......	1	696,533	696,533	462	192	654	462	....	462	....
Lincoln Coal and Coke Co.,	......	......	......	2	......	2	....	202,250	263	149	412	....	....	132	....
Atlas Coke Co.,	1	......	1	2	......	2	204,434	102,217	126	93	219	126	....	63	....
Waltersburg Coke Co.,	......	......	......	1	......	1	....	157,290	92	66	158	....	....	92	....
Evans Coal and Coke Co.,	......	......	......	1	......	1	....	85,968	126	15	141	....	....	126	....
Olive Coal Co.,	......	......	......	3	......	3	....	11,916	28	2	30	....	....	9	....
Miscellaneous Companies,	......	......	....	......	......	......	....	....	548	356	904	....	....	....	....
Totals and averages for district,	10	......	10	16	1	17	706,283	441,427	4,740	2,666	7,406	474	....	296	2,666

TABLE C.—Classification of Fatal Accidents Inside and Outside of Mines

	Months													
	January	February	March	April	May	June	July	August	September	October	November	December	Totals	Percentages.
Causes of Accidents Inside														
Falls of slate,	....	1	1	....	....	....	....	1	....	....	....	....	3	30.00
Falls of roof,	....	....	....	1	....	2	....	....	....	....	....	....	3	30.00
Mine cars,	....	....	1	....	....	....	....	....	1	1	....	....	3	30.00
Unknown,	....	....	....	....	....	....	....	....	....	....	1	....	1	10.00
Totals,	....	1	2	1	....	2	....	1	1	1	1	....	10	100.00
Causes of Accidents Outside (No accidents)														

TABLE D.—Classification of Non-Fatal Accidents Inside and Outside of Mines

	Months													
	January	February	March	April	May	June	July	August	September	October	November	December	Totals	Percentages.
Causes of Accidents Inside														
Falls of slate,	3	....	1	....	....	1	....	....	2	....	....	1	8	50.00
Falls of roof,	....	....	....	....	....	....	....	....	....	....	....	1	1	6.25
Mine cars,	....	1	1	....	1	....	1	....	....	1	....	....	5	31.25
Rush of slate,	....	....	....	....	....	....	....	1	....	....	....	....	1	6.25
Sturck by rope,	....	....	....	....	....	....	....	....	....	....	....	1	1	6.25
Totals,	3	1	2	....	1	1	1	1	2	1	....	3	16	100.00
Causes of Accidents Outside														
Cars,	....	....	....	....	....	....	....	....	1	....	....	....	1	100.00
Totals,	....	....	....	....	....	....	....	....	1	....	....	....	1	100.00
Grand totals inside and outside,	3	1	2	....	1	1	1	1	3	1	....	3	17	......

TABLE E.—Occupations of Persons Killed or Fatally Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
Inside													
Mine foremen,	....	....	....	....	....	1	....	....	....	....	....	....	1
Miners,	....	1	....	1	....	1	....	....	....	....	....	....	3
Drivers and runners,	....	....	....	....	....	....	....	....	1	....	....	....	1
Company men,	....	....	1	....	....	....	....	1	....	1	....	....	3
Pumpmen,	....	....	....	....	....	....	....	....	....	....	1	....	1
Laborers,	....	....	1	....	....	....	....	....	....	....	....	....	1
Totals,	....	1	2	1	....	2	....	1	1	1	1	....	10
Outside (No accidents)													

TABLE F.—Occupations of Persons Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
Inside													
Mine foremen,	1	....	....	....	....	....	....	....	....	....	....	....	1
Fire bosses,	1	....	....	....	....	1	....	....	....	....	....	....	2
Miners,	1	....	2	....	....	....	....	1	2	....	....	2	8
Drivers and runners,	....	....	....	....	1	....	....	....	....	1	....	1	3
Doorboys and helpers,	...	....	....	....	....	....	1	....	....	....	....	....	1
Company men,	....	1	....	....	....	....	....	....	....	....	....	....	1
Totals,	3	1	2	....	1	1	1	1	2	1	....	3	16
Outside													
Laborers,	....	....	....	....	....	....	....	....	1	....	....	....	1
Totals,	....	....	....	....	....	....	....	....	1	....	....	....	1
Grand totals inside and outside,	3	1	2	....	1	1	1	1	3	1	....	3	17

TABLE G.—Nationality of Persons Killed or Fatally Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
American,	....	....	1	....	....	....	....	....	....	1	1	....	3
Irish,	....	....	....	....	....	1	....	....	....	....	....	....	1
Polish,	....	....	....	....	....	1	....	1	....	....	....	....	2
Slavonian,	....	1	1	....	....	....	....	....	1	....	....	....	3
Russian,	....	....	....	1	....	....	....	....	....	....	....	....	1
Totals,	....	1	2	1	....	2	....	1	1	1	1	....	10

TABLE H.—Nationality of Persons Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
American,	2	....	....	....	....	1	1	....	....	1	....	1	6
Welsh,	....	1	....	....	....	....	....	....	....	....	....	....	1
Polish,	1	....	....	....	....	....	....	....	1	....	....	1	3
Hungarian,	....	....	1	....	....	....	....	1	1	....	....	....	3
Italian,	....	....	....	....	....	....	....	....	....	....	....	1	1
Slavonian,	....	....	....	....	1	....	....	....	1	....	....	....	2
Russian,	....	....	1	....	....	....	....	....	....	....	....	....	1
Totals,	3	1	2	....	1	1	1	1	3	1	....	3	17

TABLE I.—Operators and mines, kind of openings, type and size of fans, size of furnaces, volume of air produced by fan or furnace per minute, number of splits of air currents and number of persons employed inside

Names of Operators and Mines	Kind of opening	Gaseous or non-gaseous	Method of ventilation	Diameter of fan in feet and inches	Width of blades in feet and inches	Depth of blades in feet and inches	Number of revolutions per minute	Water gauge developed—in inches	Name of fan	Power used	Area of furnace bars in square feet	Number of splits of air currents	Number of cubic feet of air per minute entering the mine at inlet	Total number of cubic feet of air per minute circulating in all the splits	Number of cubic feet of air per minute passing out at outlet	Number of persons employed inside
H. C. Frick Coke Co.																
Continental No. 1, ...	Shaft,.....	Gaseous, ..	Fan, ...	16.0	10.0	4.0	100	1.1	Capell, ...	Steam,......	..	5	131,400	110,965	132,000	224
Continental No. 2, ...	Shaft,.....	Gaseous, ..	Fan, ...	16.0	10.0	4.0	110	1.0	Capell, ...	Steam,......	..	5	115,000	112,000	115,600	174
Continental No. 3, ...	Slope, ...	Gaseous, ..	Fan, ...	25.0	8.0	6.5	70	1.8	Guibal, ...	Steam,......	..	5	104,000	96,250	105,080	146
Crossland, ...	Slope, ...	Gaseous, ..	Fan, ...	11.8	3.5	3.4	110	.9	Guibal, ...	Steam,......	..	3	58,500	46,000	†49,200	58
Kyle, ...	Drift, ...	Non-gas., .	Fan, ...	20.0	5.4	4.6	104	1.6	Guibal, ...	Electricity,.	..	5	143,915	118,915	157,500	157
Leisenring No. 2, ...	Shaft,.....	Gaseous, ..	Fan, ...	20.0	8.0	5.0	100	2.3	Capell, ...	Steam,......	..	6	151,650	138,200	†133,200	281
Leith No. 1, ...	Shaft,.....	Gaseous, ..	Fan, ...	16.0	8.0	4.0	120	2.0	Capell, ...	Steam,......	..	5	133,200	120,000	135,000	106
Leith No. 2, ...	Slope, ...	Gaseous, ..	Fan, ...	20.0	6.0	4.8	60	.9	Guibal, ...	Steam,......	..	2	63,000	52,400	65,300	70
Lemont No. 1, ...	Slope, ...	Gaseous, ..	Fan, ...	20.0	5.8	4.8	90	2.7	Guibal, ...	Steam,......	..	3	76,500	55,050	†	139
Lemont No. 2, ...	Slope, ...	Gaseous, ..	Fan, ...	12.0	10.0	3.0	165	2.2	Capell, ...	Steam,......	..	5	107,820	86,990	112,260	198
Oliphant, ...	Slope, ...	Gaseous, ..	Fan, ...	25.0	7.7	6.5	75	1.5	Guibal, ...	Steam,......	..	2	80,000	83,000	90,000	119
Phillips, ...	Shaft,.....	Gaseous, ..	Fan, ...	20.0	8.0	5.0	77	1.3	Capell, ...	Steam,......	..	5	129,360	97,260	121,000	232
Redstone, ...	Slope, ...	Gaseous, ..	Fan, ...	20.0	11.0	5.0	100	2.2	Robinson, ..	Steam,......	..	7	207,000	201,000	†	239
Wynn, ...	Slope, ...	Gaseous, ..	Fan, ...	16.0	4.0	4.0	104	1.3	Guibal, ...	Electricity,.	..	5	108,500	72,400	114,200	142
Youngstown, ...	Slope, ...	Gaseous, ..	Fan, ...	20.0	5.8	5.0	80	2.2	Guibal, ...	Steam,......	..	4	80,000	76,000	80,900	121
Oliver and Snyder Steel Co.																
Oliver No. 1,*	Shaft,.....	Gaseous, ..	Fan, ...	......	......	......	......	......	Robinson, ..	Steam,......	..	3	74,690	74,690	156,000	228
Oliver No. 2, ...	Shaft,.....	Gaseous, ..	Fan, ...	20.0	9.5	8.0	100	1.5	Robinson, ..	Steam,......	..	5	207,500	142,000	†136,200	281
Oliver No. 3, ...	Shaft,.....	Gaseous, ..	Fan, ...	18.0	10.0	8.5	90	1.5	Capell, ...	Steam,......	..	5	153,065	116,805	†152,500	230
W. J. Rainey																
Revere, ...	Slope, ...	Gaseous, ..	Fan, ...	25.0	7.0	9.0	70	2.7	Allis-Chalmers,	Steam,......	..	4	135,000	100,000	140,200	277
Mt. Braddock, ...	Slope, ...	Gaseous, ..	Fan, ...	25.0	6.2	6.0	70	2.3	Lepley, ...	Steam,......	..	4	110,000	80,480	115,000	185

Lincoln Coal and Coke Co.															
Lincoln No. 1, ...	Slope, ...	Gaseous, ..	Fan, ...	18.0	8.0	8.5	95	2.0	Clifford, ...	Steam, ...	..	5	190,000	70,000	200,000	241
Lincoln No. 2, ...	Drift, ...	Non-gas., .	Fan, ...	12.0	4.0	3.5	100	.5	Guibal, ...	Steam, ...	..	1	23,000	18,000	24,500	22
Atlas Coke Co.															
Lafayette, ...	Slope, ...	Gaseous, ..	Fan, ...	20.0	8.0	4.5	78	1.7	Lepley, ...	Steam, ...	..	3	100,500	60,000	†	126
Waltersburg Coke Co.															
Edna, ...	Slope, ...	Gaseous, ..	Fan, ...	16.0	4.0	4.5	64	.3	Lepley, ...	Electricity, .	..	1	66,000	28,920	†52,000	92
United Connellsville Coke Co.															
Crystal, ...	Drift, ...	Non-gas., .	Fan, ...	15.0	4.5	4.5	100	.8	Guibal, ...	Steam, ...	..	2	†	45,000	46,500	80
Evans Coal and Coke Co.															
Ray No. 1, ...	Slope, ...	Gaseous, ..	Fan, ...	16.0	3.0	2.8	75	.5	Guibal, ...	Steam, ...	..	1	34,300	36,000	39,000	69
Grace No. 2, ...	Slope, ...	Gaseous, ..	Fan, ...	10.0	2.0	3.0	104	.5	Guibal, ...	Electricity, .	..	1	25,200	22,400	29,000	57
Stewart Iron Co., Limited															
Stewart, ...	Slope, ...	Gaseous, ..	Fan, ...	20.0	6.0	6.5	50	.4	Guibal, ...	Steam, ...	..	2	39,000	37,000	40,000	70
Rich Hill Coke Co.															
Rich Hill, ...	Drift, ...	Non-gas., .	Fan, ...	16.0	5.0	5.5	45	.3	Guibal, ...	Electricity, .	..	2	48,000	38,000	48,500	74
Brownfield Connellsville Coke Co.															
Marie, ...	Drift, ...	Gaseous, ..	Fan, ...	7.0	4.0	2.6	160	.5	Robinson, ..	Electricity, .	..	1	28,000	18,000	29,000	26
Martha, ...	Slope, ...	Non-gas., .	Fan, ...	6.0	3.5	2.0	60	.5	Robinson, ..	Electricity, .	..	1	19,000	14,500	19,500	22
Olive Coal Co.															
Maggie, ...	Drift, ...	Non-gas., *	Furnace, ..	......	......	......	......	......	....	....	18	1	15,700	12,000	†15,500	28
Sunshine Coal and Coke Co.															
Rose, ...	Drift, ...	Non-gas., .	Furnace, ..	......	......	......	......	......	....	....	18	1	8,000	6,000	†7,500	26
Cheat Haven Coal and Coke Co.															
Eagle, ...	Drift, ...	Non-gas., .	Fan, ...	15.0	4.5	4.5	45	.7	Brasil, ...	Steam, ...	..	1	23,000	18,000	35,000	25
Penn Coke Co.															
Penn No. 2, ...	Drift, ...	Non-gas., .	Furnace, ..	......	......	......	......	......	....	....	16	1	†	10,000	14,000	21
Smithfield Coal and Coke Co.															
Burchinal, ...	Drift, ...	Non-gas., .	Fan, ...	5.0	1.5	1.5	225	.2	Stine, ...	Gasoline, ..	..	1	10,000	8,000	7,000	26

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*Ventilated by fan at Oliver No. 2.

†NOTE.—A greater volume of air appearing in the inlet than in the return is due to the surface breaks by which the air escapes before it can be measured. The reason measurements do not appear in the return is that the ventilation being produced by a force fan, where there are numerous surface breaks, the air before being measured escapes. The same reasons may be applied where no air measurements appear in the inlet. In such cases the ventilation is produced by an exhaust fan.

TABLE I.—Continued

Names of Operators and Mines	Kind of opening	Gaseous or non-gaseous	Method of ventilation	Diameter of fan in feet and inches	Width of blades in feet and inches	Depth of blades in feet and inches	Number of revolutions per minute	Water gauge developed—in inches	Name of fan	Power used	Area of furnace bars in square feet	Number of splits of air currents	Number of cubic feet of air per minute entering the mine at inlet	Total number of cubic feet of air per minute circulating in all the splits	Number of cubic feet of air per minute passing out at outlet	Number of persons employed inside
Southern Connellsville Coke Co. Marion,	Drift,	Non-gas.,	Furnace,	......	......	......	......	......	......	......	30	1	16,000	10,000	17,500	11
H. R. Sackett Coal and Coke Co. Sackett,	Drift,	Non-gas.,	Furnace,	......	......	......	......	......	......	......	33	1	7,500	6,700	8,000	19
Hogsett Coal and Coke Co. Hogsett,	Slope,	Gaseous,	Fan,	10.0	3.0	3.5	80	.3	Brazil,	Steam,	..	1	21,500	16,000	22,800	32
Republic Iron and Steel Co. Atcheson,	Drift,	Non-gas.,	Fan,	15.0	4.0	4.0	75	.4	Guibal,	Steam,	..	1	31,000	17,500	†28,000	44
Ada Coke Co. Ada,	Drift,	Non-gas.,	Furnace,	......	......	......	......	......	......	......	30	1	8,000	5,000	8,500	18
John A. Whyel and Son Snyder,	Drift,	Non-gas.,	Natural,	......	......	......	......	......	......	......	..	1	5,200	4,400	†	13
Johnson Fuel Co. Percy,	Slope,	Non-gas.,	Fan,	5.0	1.5	2.0	250	.2	Stine,	Electricity,	..	1	4,000	3,200	4,500	11
Fancy Hill Coal Works Eagle,	Drift,	Non-gas.,	Fan,	15.0	4.5	4.5	45	.4	Brazil,	Steam,	..	1	23,000	18,000	35,000	30

†NOTE.—A greater volume of air appearing in the inlet than in the return is due to the surface breaks by which the air escapes before it can be measured. The reason measurements do not appear in the return is that the ventilation being produced by a force fan, where there are numerous surface breaks, the air before being measured escapes. The same reasons may be applied where no air measurements appear in the inlet. In such cases the ventilation is produced by an exhaust fan.

TABLE J.—Mines using coal cutting machines, power used, geological and local names of seams, thickest and thinnest seams where machines are used, and the approximate number of tons produced by machines

Names of Operators	Names of Mines	Kind of opening	Gaseous or non-gaseous	Number of mining machines used	Power used by machines	Geological and local names of seams	Average thickness in inches	Height of Seam in Inches		Approximate number of tons produced by machines
								Thickest	Thinnest	
H. C. Frick Coke Co.,	Continental No. 1,	Shaft,	Gaseous,	9	Compressed air,	Pittsburgh,	100	108	92	217,797
	Kyle,	Drift,	Non-gas.,	2	Electricity,		92	104	80	55,703
	Leisenring No. 2,	Shaft,	Gaseous,	1	Compressed air,		104	110	98	3,856
	Leith No. 1,	Shaft,	Gaseous,	1	Compressed air,		104	110	98	8,155
	Oliphant,	Slope,	Gaseous,	4	Electricity,		102	110	94	33,470
	Phillips,	Shaft,	Gaseous,	10	Compressed air,		102	108	96	44,296
	Redstone,	Slope,	Gaseous,	4	Compressed air,		104	110	98	61,377
	Wynn,	Slope,	Gaseous,	1	Electricity,		98	106	90	2,690
Totals,				32						427,344
W. J. Rainey,	Revere,	Slope,	Gaseous,	10	Compressed air,	Pittsburgh,	100	114	86	149,552
Lincoln Coal and Coke Co.,	Lincoln No. 1,	Slope,	Gaseous,	5	Compressed air,	Pittsburgh,	104	114	94	150,000
Evans Coal and Coke Co.,	Ray No. 1,	Slope,	Gaseous,	1	Electricity,	Sewickley,	60	68	52	18,760
	Grace No. 2,	Slope,	Gaseous,	2	Electricity,		58	66	50	9,896
Totals,				3						28,656
Grand totals,				50						755,552

TABLE 1.—Operators, Location of Mines, Railroads, etc.

Names of Operators and Mines	County	Name of General Superintendent	Post Office	Name of Superintendent	Post Office	Railroad to Mine
H. C. Frick Coke Co.						
Continental No. 1,	Fayette,	W. H. Clingerman,	Scottdale,	William Mullen,	Uniontown,	Penna. and B. and O.
Continental No. 2,				S. W. Brown,	Uniontown,	Penna. and B. and O.
Continental No. 3,				E. F. Speer,	Newcomer,	Penna. and B. and O.
Crossland,				C. W. Evans,	Uniontown,	B. and O.
Kyle,				G. C. Hodges,	Fairchance,	Pennsylvania
Leisenring No. 2,				R. K. Warnock,	West Leisenring,	Pennsylvania
Leith Nos. 1 and 2,				P. J. Locke,	Uniontown,	Penna. and B. and O.
Lemont Nos. 1 and 2,				V. D. Callaghan,	Lemont Furnace,	Penna. and B. and O.
Oliphant,				T. W. English,	Oliphant Furnace,	Pennsylvania
Phillips,				W. J. Culleton,	Uniontown,	Pennsylvania
Redstone,				Herbert Boyd,	Brownfield,	Penna. and B. and O.
Wynn,				T. I. Scott,	Fairchance,	Pennsylvania
Youngstown,				R. H. Berry,	Lemont Furnace,	Penna. and B. and O.
Oliver and Snyder Steel Co.						
Oliver No. 1,	Fayette,	F. C. Keighley,	Uniontown,	John H. Lane,	Oliver,	Penna., B. and O., P. V. and C. P. V. and C.
Oliver No. 2,						
Oliver No. 3,						
W. J. Rainey						
Revere,	Fayette,	L. L. Willard,	Uniontown,	Robert J. Hoggett,	Uledi,	Pennsylvania
Mt. Braddock,				W. E. Matthews,	Mt. Braddock,	Penna. and B. and O.
Lincoln Coal and Coke Co.						
Lincoln Nos. 1 and 2,	Fayette,	E. L. Stoner,	Scottdale,	B. B. Leichliter,	Waltersburg,	Pennsylvania
Atlas Coke Co.						
Lafayette,	Fayette,	W. D. McKeefrey,	Leetonia, Ohio,	James Henderson,	Uniontown,	Pennsylvania
Waltersburg Coke Co.						
Edna,	Fayette,	W. A. Stone,	Uniontown,	O. P. Stone,	Waltersburg,	P. V. and C.
United Connellsville Coke Co.						
Crystal,	Fayette,	J. H. Hillman, Jr.,	Pittsburgh,	E. V. Leadbeter,	Gans,	B. and O.
Evans Coal and Coke Co.						
Ray No. 1,	Fayette,	A. C. Stickel,	Uniontown,	David Ainsley,	Uniontown,	B. and O.
Grace No. 2,						
Stewart Iron Co., Limited						
Stewart,	Fayette,	Samuel McClure,	Sharon,	Thomas Keighley,	Uniontown,	B. and O.

Rich Hill Coke Co. Rich Hill,	Fayette,	D. S. Richey,	Uniontown,	D. S. Richey,	Uniontown,	B. and O.
Brownfield Connellsville Coke Co. Marie, Martha,	Fayette,	I. H. Brownfield,	Uniontown,	William Beal,	Uniontown,	B. and O.
Olive Coke Co. Maggie,	Fayette,	H. J. Huntsinger,	Uniontown,	H. J. Huntsinger,	Uniontown,	Pennsylvania
Sunshine Coal and Coke Co. Rose,	Fayette,	J. B. Topham,	Smithfield,	T. B. Topham,	Uniontown,	B. and O.
Cheat Haven Coal and Coke Co. Eagle,	Fayette,	J. T. Fawcett,	Cheat Haven,	J. T. Fawcett,	Cheat Haven,	B. and O.
Penn Coke Co. Penn No. 2,	Fayette,	S. W. Henshaw,	Uniontown,	S. W. Henshaw,	Uniontown,	B. and O.
Smithfield Coal and Coke Co. Burchinal,	Fayette,	R. S. Burchinal,	Smithfield,	R. S. Burchinal,	Smithfield,	B. and O.
Southern Connellsville Coke Co. Marion,	Fayette,	S. A. Carson,	Uniontown,	A. Laing,	Cheat Haven,	B. and O.
H. R. Sackett Coal and Coke Co. Sackett,	Fayette,	H. R. Sackett,	Smithfield,	H. R. Sackett,	Smithfield,	B. and O.
Hogsett Coal and Coke Co. Hogsett,	Fayette,	McClellan Leonard,	Uniontown,	D. J. Twist,	Lemont Furnace,	Pennsylvania
Republic Iron and Steel Co. Atcheson,	Fayette,	G. W. Gehres,	Republic,	G. W. Gehres,	Republic,	B. and O.
Ada Coke Co. Ada,	Fayette,	McClellan Leonard,	Uniontown,	J. A. Strickler,	Uniontown,	B. and O.
John A. Whyel and Son Snyder,	Fayette,	John A. Whyel,	Uniontown,	John A. Whyel,	Uniontown,	Local
Johnson Fuel Co. Percy,	Fayette,	C. W. Johnson,	Uniontown,	J. W. Sterling,	Uniontown,	B. and O.
Fancy Hill Coal Works Eagle,	Fayette,	Alfred Howell,	Cheat Haven,	John B. Moore,	Cheat Haven,	B. and O.

TABLE 2.—Number of tons of coal mined and tons of coke produced, number of days worked, number of persons employed, number killed and injured, quantity of powder, dynamite and permissible explosives used, etc.

Names of Operators and Mines	County	Number of tons of coal shipped to market	Number of tons used at mines for steam and heat	Number of tons sold to local trade and used by employes	Number of tons used in manufacture of coke	Total production of coal in tons	Total production of coke in tons	Number of coke ovens	Number of days worked	Number of employes	Number of fatal accidents	Number of non-fatal accidents	Explosives: Number of pounds of powder used	Explosives: Number of pounds of dynamite used	Explosives: Number of pounds of permissible explosives used	Number of horses and mules
H. C. Frick Coke Co.																
Continental No. 1,	Fayette,	100	1,627	3,562	445,801	451,090	297,199	400	292	336	....	....	....	....	....	56
Continental No. 2,		383	5,377	2,157	303,221	311,138	202,146	326	290	293	....	....	....	....	36,750	45
Continental No. 3,		....	4,710	1,925	253,053	259,688	168,700	300	291	250	....	....	....	....	30,836	37
Crossland,		....	2,243	498	106,382	109,123	70,919	120	288	98	....	....	....	....	3,375	17
Kyle,		3,803	....	4,616	256,834	265,253	160,522	306	293	218	....	....	....	....	25,800	26
Leisenring No. 2,		1,591	9,134	4,648	371,199	386,572	247,465	500	294	380	1	....	....	....	31,400	60
Leith No. 1,		2,991	7,660	3,069	258,102	271,822	172,066	304	293	192	1	....	....	....	11,550	45
Leith No. 2,									293	70	1	....	....	....	....	....
Lemont No. 1,		3,782	13,503	1,041	454,280	472,606	302,852	227	292	274	....	....	....	....	1,097	30
Lemont No. 2,								350	292	312	1	....	....	....	1,097	40
Oliphant,		444	4,087	3,591	201,064	209,186	134,041	252	293	208	1	....	....	....	26,653	33
Phillips,		....	....	4,446	398,241	402,687	265,492	400	293	325	....	1	....	....	48,750	48
Redstone,		....	12,133	2,672	368,800	383,605	245,864	446	292	375	....	....	....	....	21,800	40
Wynn,		....	....	2,328	266,718	269,046	166,699	300	294	213	....	....	....	....	31,200	24
Youngstown,		7,229	7,035	3,901	182,432	200,597	121,619	241	290	216	....	....	....	....	32,000	31
Totals,	....	20,323	67,509	38,454	3,866,127	3,992,413	2,555,584	4,472	......	3,760	5	1	....	....	302,308	532
Oliver and Snyder Steel Co.																
Oliver No. 1,	Fayette,	....	4,756	2,606	299,481	306,843	199,654	328	299	361	2	3	....	....	24,065	39
Oliver No. 2,		....	6	....	335,636	335,642	223,413	400	299	443	1	1	....	....	41,340	60
Oliver No. 3,		....	....	1,832	279,812	281,644	185,120	300	299	324	....	2	....	....	25,800	44
Totals,	....	....	4,762	4,438	914,929	924,129	608,187	1,028	......	1,128	3	6	....	....	91,225	143

W. J. Rainey															
Revere,	Fayette,	....	6,692	3,963	416,637	427,292	277,579	550	304	376	....	1	....	....	28,025	65
Mt. Braddock,		....	19,265	2,905	247,071	269,241	164,714	800	304	278	1	....	....	....	1,950	40
Totals,	....	....	25,957	6,868	663,708	696,533	442,293	910	......	654	1	1	....	....	29,975	105
Lincoln Coal and Coke Co.															
Lincoln Nos. 1 and 2,	Fayette,	....	9,500	5,000	390,000	404,500	271,294	400	306	412	....	2	....	....	20,000	49
Atlas Coke Co.															
Lafayette,	Fayette,	....	3,846	1,724	193,864	204,434	162,721	220	310	219	1	2	....	....	8,000	17
Waltersburg Coke Co.															
Edna,	Fayette,	316	150	741	156,083	157,290	98,913	149	304	158	....	1	....	....	6,000	14
United Connellsville Coke Co.															
Crystal,	Fayette,	800	724	347	123,398	125,269	81,450	118	311	131	....	....	....	....	24,450	19
Evans Coal and Coke Co.															
Ray No. 1,	Fayette,	54,236	1,011	1,032	....	56,280	....	......	311	76	....	1	....	....	....	7
Grace No. 2,		29,646	42	....	....	29,688	....	......	311	65	....	....	....	....	....	8
Totals,	....	83,882	1,053	1,033	....	85,968	....	......	......	141	....	1	....	....	......	15
Stewart Iron Co., Limited															
Stewart,	Fayette,	....	2,026	276	80,822	83,124	69,125	155	310	123	....	....	....	....	5,975	16
Rich Hill Coke Co.															
Rich Hill,	Fayette,	....	560	575	78,444	79,579	59,820	120	287	133	....	....	....	....	3,000	11
Brownfield Connellsville Coke Co.															
Marie,	Fayette,	34,000	....	500	....	34,500	....	......	294	31	....	....	....	....	....	6
Martha,		26,000	500	....	....	26,500	....	......	294	25	....	....	....	....	....	5
Totals,	....	60,000	500	500	....	61,000	....	......	......	56	....	....	....	....	....	11
Olive Coal Co.															
Maggie,	Fayette,	35,553	75	120	....	35,748	....	......	295	30	....	3	....	....	....	6
Sunshine Coal and Coke Co.															
Rose,	Fayette,	....	45	15	33,018	33,078	22,015	86	201	53	....	....	....	....	4,000	5
Cheat Haven Coal and Coke Co.															
Eagle,	Fayette,	29,030	100	50	....	29,180	....	......	259	34	....	....	11,100	....	....	7
Penn Coke Co.															
Penn No. 2,	Fayette,	28,700	240	60	....	29,000	....	86	256	28	....	....	....	....	....	5

TABLE 2.—Continued

Names of Operators and Mines	County	Number of tons of coal shipped to market	Number of tons used at mines for steam and heat	Number of tons sold to local trade and used by employes	Number of tons used in manufacture of coke	Total production of coal in tons	Total production of coke in tons	Number of coke ovens	Number of days worked	Number of employes	Number of fatal accidents	Number of non-fatal accidents	Explosives			Number of horses and mules
													Number of pounds of powder used	Number of pounds of dynamite used	Number of pounds of permissible explosives used	
Smithfield Coal and Coke Co. Burchinal, ...	Fayette, ...	4,000	100	100	20,000	24,200	13,000	34	252	42	....	....	....	....	2,000	6
Southern Connellsville Coke Co. Marion, ...	Fayette, ...	2,461	200	100	20,609	23,370	12,870	64	263	38	....	....	....	....	....	2
H. R. Sackett Coal and Coke Co. Sackett, ...	Fayette, ...	400	300	....	14,000	14,700	9,300	30	150	35	....	....	....	....	800	4
Hogsett Coal and Coke Co. Hogsett, ...	Fayette, ...	11,865	1,044	51	....	12,960	....	......	127	39	....	....	....	....	2,300	4
Republic Iron and Steel Co. Atcheson, ...	Fayette, ...	88	157	64	12,069	12,378	7,845	120	98	82	....	....	....	....	....	10
Ada Coke Co. Ada, ...	Fayette, ...	4,450	687	25	6,836	11,998	4,558	40	189	34	....	....	....	....	2,500	3
John A. Whyel and Son Snyder, ...	Fayette, ...	....	....	11,850	....	11,850	....	......	253	16	....	....	850	....	....	2

Johnson Fuel Co. Percy,	Fayette,	2,764	....	50	4,146	6,960	2,764	32	284	24	....	....	....	500	1,000	3
Fancy Hill Coal Works Eagle,	Fayette,	3,159	....	6	....	3,165	....	......	22	36	....	....	1,200	....	....	5
Grand totals,		287,791	124,535	72,447	6,578,053	7,062,826	4,421,739	8,064	......	7,406	10	17	13,150	500	503,538	994

TABLE 2.—Part 2

Names of Operators	County	Number of Boilers					Locomotives				Number of steam engines of all classes	Total horse power	Number of pumps delivering water to surface	Capacity in gallons per minute	Quantity delivered to surface per minute—gallons	Number of electric dynamos	Number of air compressors
		Cylindrical	Horse power	Tubular	Horse power	Total horse power	Gasoline	Steam	Air	Electric							
H. C. Frick Coke Co.,	Fayette,	2	90	87	12,520	12,610	......	10	9	9	71	9,763	25	27,200	8,040	18	18
Oliver and Snyder Steel Co.,		......	......	31	2,365	2,365	......	......	......	......	10	1,490	5	1,160	530	2	3
W. J. Rainey,		......	......	15	2,780	2,780	......	......	......	......	15	2,130	9	3,400	1,820	5	5
Lincoln Coal and Coke Co.,		6	600	1	400	1,000	......	......	2	......	11	1,000	2	1,200	......	......	3
Atlas Coke Co.,		......	......	8	640	640	......	......	......	......	8	572	3	1,400	500	2	2
Waltersburg Coke Co.,		......	......	2	100	100	......	......	......	......	3	50	5	565	550	......	......
United Connellsville Coke Co.,		......	......	2	275	275	......	......	......	......	3	140	2	225	50	......	......
Evans Coal and Coke Co.,		......	......	1	50	50	......	......	......	......	1	25	3	1,200	1,200	......	......
Stewart Iron Co., Limited,		1	50	3	700	750	......	......	......	......	4	514	1	408	245	......	1
Rich Hill Coke Co.,		......	......	2	160	160	......	......	......	1	2	160	......	......	......	1	......
Brownfield Connellsville Coke Co.,		......	......	......	......	......	......	......	......	......	2	60	6	900	350	......	......
Olive Coal Co.,		......	......	......	......	......	......	......	......	......	......	......	1	42	42	......	......
Sunshine Coal and Coke Co.,		......	......	1	50	50	......	......	......	......	2	60	......	......	......	......	......
Cheat Haven Coal and Coke Co.,		......	......	1	25	25	......	......	......	......	1	20	......	......	......	......	......
Smithfield Coal and Coke Co.,		1	30	1	80	110	......	......	......	......	......	......	......	......	......	......	......
Southern Connellsville Coke Co.,		......	......	2	60	60	......	......	......	......	......	......	2	100	75	......	......
H. R. Sackett Coal and Coke Co.,		1	50	......	......	50	......	......	......	......	2	50	......	......	......	......	......
Hogsett Coal and Coke Co.,		......	......	2	200	200	......	......	......	......	2	150	1	150	100	......	1
Republic Iron and Steel Co.,		......	......	......	......	......	......	......	......	......	1	40	2	60	30	......	......
Ada Coke Co.,		......	......	1	75	75	......	......	......	......	......	......	......	......	......	......	......
Johnson Fuel Co.,		......	......	......	......	......	......	......	......	......	......	......	1	20	15	......	......
Fancy Hill Coal Works,		......	......	2	60	60	......	......	......	......	......	......	......	......	......	......	......
Totals,		11	820	162	20,540	21,360	......	10	11	10	188	16,224	68	38,030	13,547	23	33

TABLE 3.—Number of Each Class of Employes Inside and Outside of Mines

Names of Operators	County	Inside												Outside								Grand total inside and outside
		Mine foremen	Assistant mine foremen	Fire bosses	Miners	Machine runners	Machine loaders	Machine scrapers	Drivers and runners	Doorboys and helpers	Company men	All other employes	Total inside	Superintendents	Foremen	Blacksmiths and carpenters	Engineers and firemen	Coke employes	Bookkeepers and clerks	All other employes	Total outside	
H. C. Frick Coke Co., ...	Fayette, ..	14	24	36	1,205	32	150	28	197	36	436	198	2,356	14	32	95	92	666	20	485	1,404	3,760
Oliver and Snyder Steel Co.,		3	4	9	486	....	....	....	79	6	99	53	739	2	3	17	30	223	6	108	389	1,128
W. J. Rainey, ...		2	4	6	184	9	50	9	49	7	....	142	462	2	2	20	19	49	19	81	192	654
Lincoln Coal and Coke Co., ..		2	1	2	145	5	30	5	22	4	47	....	263	1	3	6	10	110	4	15	149	412
Atlas Coke Co., ...		1	....	2	85	....	....	....	12	2	19	5	126	1	4	3	4	62	1	18	93	219
Waltersburg Coke Co., ...		1	....	1	70	....	....	....	9	1	8	2	92	2	1	3	1	44	1	14	66	158
United Connellsville Coke Co.,		1	1	....	60	....	....	....	10	....	7	1	80	1	1	3	2	33	1	10	51	131
Evans Coal and Coke Co., ...		2	....	2	67	3	7	2	13	....	26	4	126	2	1	3	3	......	4	2	15	141
Stewart Iron Co., Limited,..		1	....	1	50	....	....	....	8	1	....	9	70	1	1	2	4	42	1	2	53	123
Rich Hill Coke Co., ...		1	....	....	49	....	....	....	5	....	....	19	74	1	1	1	1	33	1	21	59	133
Brownfield Connellsville Coke Co., ...		2	....	2	32	....	....	....	6	....	6	....	48	1	....	2	2	......	....	3	8	56
Olive Coal Co., ...		1	....	....	22	....	....	....	3	....	2	....	28	1	....	....	....	......	....	1	2	30
Sunshine Coal and Coke Co.,		1	....	....	20	....	....	....	2	....	3	....	26	1	1	2	2	15	1	5	27	53
Cheat Haven Coal and Coke Co., ...		1	....	....	20	....	....	....	3	....	1	....	25	1	....	1	1	......	2	4	9	34
Penn Coke Co., ...		1	....	....	12	....	....	....	2	....	4	2	21	1	....	1	....	......	1	4	7	28
Smithfield Coal and Coke Co.,		1	1	....	20	....	....	....	2	....	2	....	26	1	1	....	1	12	....	1	16	42
Southern Connellsville Coke Co., ...		1	....	....	8	....	....	....	1	....	1	....	11	1	1	1	1	22	1	....	27	38
H. R. Sackett Coal and Coke Co., ...		1	....	....	15	....	....	....	2	....	1	....	19	1	1	1	1	11	1	....	16	35
Hogsett Coal and Coke Co., ..		1	....	1	18	....	....	....	4	....	8	....	32	1	....	1	3	......	1	1	7	39
Republic Iron and Steel Co.,		1	....	....	33	....	....	....	5	....	5	....	44	1	1	2	3	24	1	6	38	82
Ada Coke Co., ...		1	....	....	13	....	....	....	2	....	2	....	18	1	....	1	....	9	1	4	16	34
John A. Whyel and Son, ...		1	....	....	10	....	....	....	2	....	....	....	13	1	....	....	....	......	1	1	3	16
Johnson Fuel Co., ...		1	....	....	6	....	....	....	1	....	2	1	11	....	....	....	1	6	1	5	13	24
Fancy Hill Coal Works, ...		1	....	....	25	....	....	....	3	....	1	....	30	1	....	....	1	......	....	4	6	36
Totals, ...	....	43	35	62	2,655	49	237	44	442	57	680	436	4,740	40	54	165	182	1,361	69	795	2,666	7,406

TABLE 3.—Part 2

Names of Operators	County	Average Number of Days Worked												
		January	February	March	April	May	June	July	August	September	October	November	December	Total
H. C. Frick Coke Co.,	Fayette,	27	24	25	25	27	25	26	25	25	26	21	16	292
Oliver and Snyder Steel Co.,		27	24	26	26	27	25	26	26	26	27	22	17	299
W. J. Rainey,		27	24	24	26	27	25	25	26	26	27	23	24	304
Lincoln Coal and Coke Co.,		27	24	26	26	27	25	25	26	26	27	21	26	306
Atlas Coke Co.,		27	24	26	26	27	25	25	26	26	27	25	26	310
Waltersburg Coke Co.,		26	24	26	25	26	25	24	25	26	26	25	26	304
United Connellsville Coke Co.,		27	24	26	26	27	25	26	26	26	27	25	26	311
Evans Coal and Coke Co.,		27	24	26	26	27	26	26	27	26	27	23	26	311
Stewart Iron Co., Limited,		27	24	26	26	27	25	26	26	25	27	25	26	310
Rich Hill Coke Co.,		25	22	20	24	27	21	26	26	26	26	24	20	287
Brownfield Connellsville Coke Co.,		26	24	26	25	26	25	26	26	25	20	25	20	294
Olive Coal Co.,		27	23	25	23	24	26	26	26	26	26	23	20	295
Sunshine Coal and Coke Co.,		27	24	18	24	25	25	26	20	12	......	......	......	201
Cheat Haven Coal and Coke Co.,		22	24	20	19	24	25	24	26	25	25	25	......	259
Penn Coke Co.,		27	23	25	26	26	25	26	25	26	27	......	......	256
Smithfield Coal and Coke Co.,		25	24	26	20	21	20	18	18	20	20	20	20	252
Southern Connellsville Coke Co.,		27	21	24	15	17	25	24	26	20	25	23	16	263
H. R. Sackett Coal and Coke Co.,		26	23	25	......	......	......	......	13	25	26	12	......	150
Hogsett Coal and Coke Co.,		26	24	26	20	23	8	......	......	......	......	......	......	127
Republic Iron and Steel Co.,		27	24	26	18	3	......	......	......	......	......	......	......	98
Ada Coke Co.,		24	21	24	26	26	24	14	......	4	9	8	9	189
John A. Whyel and Son,		25	24	26	24	15	14	12	14	22	25	26	26	258
Johnson Fuel Co.,		24	19	24	23	25	24	24	25	24	25	23	24	284
Fancy Hill Coal Works,		......	......	......	......	......	......	......	......	......	......	......	22	22

TABLE 4.—Fatal Accidents Inside and Outside of Mines

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Number of widows	Number of orphans	Name of Mine	County	Nature and Cause of Accident in Brief
Feb. 27	Steve Backus, ...	Slavonian, ..	Miner, ...	20	S.	....	....	Oliver No. 2, ...	Fayette,	Instantly killed by falling slate while preparing to make a fall at face of room pillar.
March 3	A. J. Winson, ...	American, ..	Company man	52	M.	1	3	Leith No. 1, ...		Instantly killed by a piece of draw slate that was loosened while removing a set of double timbers in entry.
10	John Hudock, ...	Slavonian, ..	Laborer, ...	66	M.	1	....	Mt. Braddock, ...		Fatally injured by being caught between loaded mine car and coal pillar in entry.
April 30	Peter Lilcoch, ...	Russian, ...	Miner, ...	32	M.	1	1	Lafayette, ...		Killed by falling roof in pillar workings at face of cut-through.
June 5	George Mavrello, ...	Polish, ...	Miner, ...	27	M.	1	8	Leisenring No. 2, .		Fatally injured by fall of roof at face of cross-entry.
6	Joseph Rodgers, ...	Irish, ...	Mine foreman	49	M.	1	4	Oliphant, ...		Fatally injured by falling roof while making pillar fall.
Aug. 30	Andy Novak, ...	Polish, ...	Company man	41	M.	1	5	Oliver No. 1, ...		Killed by falling slate while lagging a set of timbers in pillar workings.
Sept. 3	John Novotni, ...	Slavonian, ..	Driver, ...	25	S.	....	....	Leith No. 2, ...		Instantly killed by falling in front of loaded mine car at bottom of butt entry.
Oct. 7	Isaac Dean, ...	American, ..	Company man	53	M.	1	....	Lemont No. 2, ...		Fatally injured while in shelter hole on main slope. It is supposed he was struck by a safety chain that became detached from a slope trip that was wrecked at that point.
Nov. 24	Frank Johnson, ...	American, ..	Pumper, ...	59	M.	1	2	Oliver No. 1, ...		Fatally injured while at work in pump room. He did not know how accident occurred. Died December 7.

TABLE 5.—Non-Fatal Accidents Inside and Outside of Mines

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Name of Mine	County	Nature and Cause of Accident in Brief
Jan. 9	James Ainsley, ...	American, ..	Mine foreman, ...	35	M.	Lincoln No. 1, ...	Fayette,	Ainsley's leg and Farr's collar bone were fractured by fall of slate while in consultation at face of room pillar.
	H. R. Farr, ...	American, ..	Fire boss, ...	36	M.			
16	Stanie Chese, ...	Polish, ...	Miner, ...	42	S.	Oliver No. 2, ...		Leg broken by a piece of slate that fell from side of pillar while on his way to shaft bottom.
Feb. 25	Thomas Morgan, ...	Welsh, ...	Company man, ...	69	S.	Oliver No. 1, ...		Both legs broken by empty runaway mine car on main slope haulage.
March 3	Mike Bolovich, ...	Hungarian, .	Miner, ...	50	M.	Maggie, ...		Two ribs fractured by mine car that he was dropping into his working place.
22	Frank Shikula, ...	Russian, ...	Miner, ...	24	S.	Maggie, ...		Leg fractured by fall of slate that he was trying to take down at face of room.
May 8	Andrew Loptosky, ...	Slavonian, ..	Driver, ...	17	S.	Oliver No. 3, ...		Arm bruised and head and face lacerated by falling in front of loaded mine car in entry.
June 26	Harry Sigafoes, ...	American, ..	Fire boss, ...	27	S.	Phillips, ...		Back badly injured by falling slate near face of pillar.
July 26	Ford Lowe, ...	American, ..	Doorboy	16	S.	Lafayette, ...		Hip dislocated by being caught between loaded mine car and coal pillar while dropping car out of room pillar into flat entry.
Aug. 6	Mike Dragage, ...	Hungarian, .	Miner, ...	35	M.	Lafayette, ...		Leg broken by slate sliding at face of pillar.
Sept. 4	Peter Podany, ...	Polish, ...	Laborer, ...	39	M.	Oliver No. 1, ...		Both legs badly injured by falling in front of coke car while helping car shifter to place the car on the yard. One leg had to be amputated.
9	George Purdica, ...	Hungarian, .	Miner, ...	28	S.	Maggie, ...		Foot and back bruised by fall of slate at face of room.
30	Charles Pope, ...	Slavonian, ..	Miner, ...	21	S.	Edna, ...		Leg broken by piece of falling slate at face of pillar.
Oct. 11	James Meekan, ...	American, ..	Driver, ...	28	S.	Oliver No. 3, ...		Four toes crushed by loaded mine car passing over them in entry.
Dec. 8	Banko Lodivck, ...	Polish, ...	Miner, ...	31	M.	Ray, ...		Scalp lacerated by falling slate at face of pillar.
9	John Catano, ...	Italian, ...	Miner, ...	34	M.	Revere, ...		Hip dislocated and face lacerated by falling roof in pillar workings.
22	Walter Thomas, ...	American, ..	Driver, ...	39	M.	Oliver No. 1, ...		Ankle broken by rope, which the tail chain caught as the horse was running to the stable.

CONDITION OF MINES

H. C. FRICK COKE COMPANY

Continental No. 1.—Ventilation and drainage excellent.

Continental No. 2.—Ventilation and drainage very good.

Continental No. 3.—Ventilation and drainage very good.

Crossland—Ventilation and drainage very good.

Kyle—In a very healthy condition. Drainage very good.

Leisenring No. 2.—Ventilation good, except in some minor details. Drainage good.

Leith No. 1.—Ventilation and drainage good.

Leith No. 2.—Ventilation excellent. Drainage fair.

Lemont No. 1.—Ventilation and drainage good.

Lemont No. 2.—Ventilation very good, with some minor exceptions. Drainage good.

Oliphant—Ventilation and drainage excellent.

Phillips—Ventilation very good, except in a very few places. Drainage good.

Redstone—Ventilation and drainage excellent.

Wynn—Ventilation excellent, except in one split. This condition was due to a recent change in ventilation and was rapidly being corrected. Drainage very good.

Youngstown—Ventilation and drainage very good.

OLIVER AND SNYDER STEEL COMPANY

Oliver No. 1.—Ventilation is good, except in one section, where the air was found a little sluggish, due to the airways becoming clogged by falls as a result of a slight squeeze passing over that portion of the mine. Drainage good.

Oliver No. 2.—Ventilation and drainage very good.

Oliver No. 3.—Ventilation very good, with a few minor exceptions. Drainage good.

W. J. RAINEY

Revere—Ventilation and drainage excellent.

Mt. Braddock—Ventilation good in some parts of the mine, and only fair in other parts. Drainage good.

LINCOLN COAL AND COKE COMPANY

Lincoln No. 1.—Ventilation and drainage very good, with some minor exceptions.

Lincoln No. 2.—Ventilation very satisfactory. Drainage fair.

ATLAS COKE COMPANY

Lafayette—Ventilation and drainage very good. Owing to the workings in No. 6 flat right of the slope being a little dusty, I found on my last visit a water line with hose connections rapidly being put in place to water this section. Drainage good.

WALTERSBURG COKE COMPANY

Edna—Ventilation and drainage very good.

UNITED CONNELLSVILLE COKE COMPANY

Crystal—In some part of the mine the ventilation is very good and well carried up to the working faces; in other parts it is very poor. Drainage is good in some parts of the mine, and not good in other parts.

EVANS COAL AND COKE COMPANY

Ray No. 1.—Ventilation good in some parts of the mine, and very poor in other parts. Drainage very poor throughout the entire mine.

Grace No. 2.—The air is reasonably good in some parts of the mine, and poor in other parts. Drainage is good in some parts, and fair in other parts.

STEWART IRON COMPANY, LIMITED

Stewart—Ventilation very good. Drainage good, with few exceptions.

RICH HILL COKE COMPANY

Rich Hill—The ventilation is ample, but in some parts of the mine it is not well carried up to the working faces. Drainage is very poor in the major portion of the mine; ditches are clogged and haulage-roads wet and muddy.

BROWNFIELD CONNELLSVILLE COKE COMPANY

Marie—Ventilation and drainage satisfactory.

Martha—Ventilation is ample, but it is not well carried up to working faces. Drainage fair.

OLIVE COAL COMPANY

Maggie—Ventilation and drainage satisfactory.

SUNSHINE COAL AND COKE COMPANY

Rose—Ventilation sluggish at working faces. Drainage not very satisfactory.

CHEAT HAVEN COAL AND COKE COMPANY

Eagle—Ventilation is ample, but not well distributed. Drainage very poor.

PENN COKE COMPANY

Penn No. 2.—Ventilation and drainage fair.

SMITHFIELD COAL AND COKE COMPANY

Burchinal—Ventilation and drainage very satisfactory.

SOUTHERN CONNELLSVILLE COKE COMPANY

Marion—The air is very good in some parts, and only fair in other parts. Drainage good, with some few exceptions.

H. R. SACKETT COAL AND COKE COMPANY

Sackett—Ventilation and drainage satisfactory, with some few exceptions.

HOGSETT COAL AND COKE COMPANY

Hogsett—Ventilation satisfactory in some parts of the mine, and only fair in other parts. Drainage very poor throughout the entire mine.

REPUBLIC IRON AND STEEL COMPANY

Atcheson—The ventilation was ample, but only satisfactory in some parts of the mine. Drainage very poor throughout the whole mine.

ADA COKE COMPANY

Ada—Ventilation and drainage satisfactory, with some few noted exceptions.

JOHN A. WHYEL AND SON

Snyder—Ventilation and drainage fair.

JOHNSON FUEL COMPANY

Percy—The air is well conducted up to the working faces. Drainage good.

FANCY HILL COAL WORKS

Eagle—The air is very poor in some parts of the mine, not being well distributed. Drainage very poor.

IMPROVEMENTS

H. C. FRICK COKE COMPANY

Continental No. 1.—Built 3 permanent fireproof overcasts, 26 permanent fireproof stoppings, and 1 first aid station in the mine. Also fully equipped the mine with Ceag electric lamps. Extended shaft bottom and placed in position several brick piers, on which iron beams were placed to support the roof.

Continental No. 2.—Constructed 32 permanent fireproof stoppings; took down roof and improved shaft bottom placing stone walls on sides, using steel "I" beams thereon to support the roof. Built 3 double tenement houses.

Continental No. 3.—Built 6 permanent fireproof stoppings, also 1 superintendent's 8-room frame dwelling.

Crossland—Built 7 permanent fireproof stoppings.

Kyle—Built 8 permanent stoppings. Relaid about one mile of main haulage with heavy steel.

Leisenring No. 2.—Built 48 permanent fireproof stoppings.

Leith No. 1.—Built 1 permanent fireproof overcast.

Lemont No. 1.—Built 19 permanent fireproof stoppings and 1 permanent fireproof overcast. Placed in position 213 feet of 18 inch stone wall, ranging from 8 to 14 feet in height; also 7 concrete piers to reinforce slope haulage. Built 1 stone and concrete pump house 15 by 36 by 11 feet 6 inches. Installed two 26 by 12 by 36 Scranton duplex pumps. Built brick office for use of mine officials, and erected 2 double tenement houses.

Lemont No. 2.—Built 1 permanent fireproof overcast, also 23 permanent fireproof stoppings. Installed a sprinkling system by laying a water line with plugs at short distances for hose connection.

Oliphant—Built 18 permanent fireproof stoppings. Installed 3 electric chain breast and 1 electric short-wall mining machines; 2 Covington coke-drawing machines; also installed water system, by laying water line with plugs at short distances for hose connection.

Phillips—Built 12 permanent fireproof stoppings. Improved shaft bottom by taking down to required height and building 300 feet of stone wall on sides, using steel "I" beams covered with concrete slabs to support the roof. Erected office building.

Redstone—Built 1 permanent fireproof overcast and 13 permanent fireproof stoppings. Installed 4 Ingersoll air puncher machines. Constructed one swimming pool, with two bath houses.

Wynn—Built 22 permanent fireproof stoppings; also one 8-room single dwelling for superintendent.

Youngstown—Built 1 permanent fireproof overcast and 26 permanent fireproof stoppings. Installed 2 Covington coke-drawing machines. Erected one 6-room dwelling.

OLIVER AND SNYDER STEEL COMPANY

Oliver No. 1.—Moved 44 dwelling houses in order to straighten streets, erected new fences and constructed drainage to improve living conditions. Built 1 repair-shop 20 by 40 for electric department, with complete equipment; also 1 new 16 by 32 office for General Superintendent. Installed one locomotive for hauling mine supplies, ashes, etc.

Oliver No. 2.—Extended incline plane. Built 12 cars especially for the conveyance of miners to their working places. Reinforced the bottom of main air shaft by erecting brick walls, using steel "I" beams thereon to support the roof. Also installed a locomotive for hauling mine supplies, ashes, etc.

Oliver No. 3.—Built 1 permanent fireproof overcast. Installed 50 Ackroyd and Best safety lamps; 1-150 horse-power Vulcan electric hoist; 1 permanent power house 22 by 35 feet, built of brick laid in cement. To install this haulage it was necessary to sink two 8-inch bore holes to a depth of 210 feet, one of the holes being used for signals and the other for the rope. One inch steel wire rope is used. The loaded cars are dropped by the engine to the shaft's bottom and the empties hauled back. This new haulage system is one mile long. Both bore holes were cased to the coal with a 5-⅝ inch casing. Outside the casing a grouting of cement was filled in from the coal to the surface. The power to operate the haulage is furnished by the West Penn Electric Company.

W. J. RAINEY

Mt. Braddock—Built 1 new lamp house, with extension for hospital; also built 1 brick supply house.

LINCOLN COAL AND COKE COMPANY

Lincoln No. 1.—Constructed 1 permanent fireproof overcast, 80 permanent fireproof stoppings, and 100 brick piers, using steel "I" beams thereon for supporting the roof along main haulage roads.

UNITED CONNELLSVILLE COKE COMPANY

Crystal—Erected a blacksmith and carpenter shop near the mine entrance.

OLIVE COAL COMPANY

Maggie—Built 7 permanent brick stoppings; covered tipple, and made an addition to the stable.

MINE FOREMEN'S, ASSISTANT MINE FOREMEN'S AND FIRE BOSSES' EXAMINATIONS

The annual examination of applicants for certificates of qualification as mine foremen, assistant mine foremen and fire bosses was held in the little Court Room of the Court House, Uniontown, May 6, 7 and 8. The Board of Examiners was composed of I. G. Roby, Inspector; John T. Hoover, Superintendent, and George Carr, Miner.

There were 39 applicants for certificates of qualification as mine foremen and assistant mine foremen, and 66 applicants for certificates of qualification as fire bosses. The following persons passed a satisfactory examination and were granted certificates:

MINE FOREMEN

First Grade

Gar Braden, W. Torrance Keifer, Uniontown; William B. Shultz, Phillips; George O'Brien, Uledi; Austin J. Kane, William Stevenson, Lemont Furnace; Fred W. Howarth, Brownsville; Elmer L. Fox, Andrew Lerch, Leisenring.

Second Grade

Edward F. Boyle, Lemont Furnace.

ASSISTANT MINE FOREMEN

John R. Lewis, Oliphant Furnace; George W. Laughery, William R. McElroy, Oliver; James H. Decker, Uledi; William Baird, Waltersburg; William H. Davis, Martin J. Murphy, Uniontown.

FIRE BOSSES

William Potter, Gar Braden, Hugh L. McCann, Clyde G. Brehm, John Donohue, W. Torrance Keifer, Lewis G. Reiber, William Kennedy, William McCoy, Joseph F. McArdle, John A. Jordon, Charles Reagan, Thomas Chisler, Martin J. Murphy, Uniontown; David C. Goodwin, John E. Rammage, Thomas Davis, William Coburn, Lemont Furnace; Ira Wilson, Robert J. Cole, Percy; Charles K. Dawson, Hopwood; William R. McElroy, John I. Levick, John Lewellyn, Charles C. Grim, Jr., James Costello, Oliver; James Goodwin, William C. Halfhill, Mt. Braddock; John Yonhazie, Helen; Peter Whalen, Peter Sifton, Albert J. Waggett, Frederick Longden, Waltersburg; Richard N. Wilson, Fairchance; Andrew Lerch, Leisenring; John A. Harvey, David H. McDowell, Oliphant Furnace; Thomas Kelley, Dunbar; Frank Mechinko, Louis Stemnock, Newcomer.

SIXTH DISTRICT

CAMBRIA COUNTY

Johnstown, Pa., February 10, 1914.

Hon. James E. Roderick, Chief of Department of Mines,

Sir: I have the honor to transmit herewith my report of the Sixth Bituminous District for the year ending December 31, 1913, in compliance with the Act of Assembly approved the ninth day of June, 1911.

The report contains the usual tables and statistics, together with remarks on condition of mines, the important improvements made during the year, a list of the prosecutions instituted for violation of the mining laws, a brief description of fatal accidents and a report of the annual examination of applicants for certificates of qualification as Mine Foremen, Assistant Mine Foremen and Fire Bosses.

Respectfully submitted,

THOMAS D. WILLIAMS, Inspector.

SUMMARY OF STATISTICS

Number of mines,	57
Number of mines in operation,	50
Number of tons of coal shipped to market,	5,444,606
Number of tons used at mines for steam and heat,	160,879
Number of tons sold to local trade and used by employes,	84,370
Number of tons used in the manufacture of coke,	620,534
Number of tons of coal produced,	6,310,389
Number of tons of coke produced,	436,234
Number of coke ovens,	372
Number of coke ovens in operation,	372
Number of tons of coal produced by pick mining,	4,857,337
Number of tons produced by compressed air machines,	720,388
Number of tons produced by electrical machines,	732,664
Number of persons employed inside of mines,	6,815
Number of persons employed outside, including coke workers,	1,008
Number of persons employed at manufacture of coke,	281
Number of fatal accidents inside of mines,	15
Number of fatal accidents outside,	1
Number of non-fatal accidents inside of mines,	36
Number of non-fatal accidents outside,	1
Number of tons of coal produced per fatal accident inside,	420,693
Number of tons produced per fatal accident outside,	6,310,389
Number of tons produced per fatal accident inside and outside,	394,399
Number of persons employed per fatal accident inside,	454
Number of persons employed per fatal accident outside,	1,008
Number of persons employed per fatal accident inside and outside,	489
Number of persons employed per non-fatal accident inside,	189
Number of persons employed per non-fatal accident outside,	1,008
Number of persons employed per non-fatal accident inside and outside,	211
Number of wives made widows,	12
Number of children made orphans,	23
Number of steam locomotives used inside of mines,	....
Number of steam locomotives used outside,	....
Number of compressed air locomotives used inside,	8
Number of compressed air locomotives used outside,	....
Number of electric motors used inside,	73
Number of electric motors used outside,	....
Number of gasoline locomotives used inside,	....
Number of fans in use,	47
Number of furnaces in use,	3
Number of gaseous mines in operation,	10
Number of non-gaseous mines in operation,	40
Number of new mines opened,	3
Number of old mines abandoned,	3

TABLE A

PRODUCTION OF COAL

Names of Operators	Tons
Cambria Steel Company,	1,500,854
Pennsylvania Coal and Coke Corporation,	523,498
Logan Coal Company,	522,311
Portage Coal Mining Company,	376,324
Argyle Coal Company,	345,652
Stineman Coal and Coke Company,	314,411
Miller Coal Company,	290,937
Maryland Coal Company of Pennsylvania,	270,939
Stineman Coal Mining Company,	232,552
Henriette Coal Mining Company,	204,400
Forge Coal Mining Company,	195,257
George Pearce and Sons,	189,626
Beaver Run Coal Company,	174,084
Loyal Hanna Coal and Coke Company,	168,257
Mountain Coal Company,	156,138
Citizens Coal Company,	128,638
South Fork Coal Mining Company,	112,178
J. Blair Kennerly,	92,215
Plymouth Coal Mining Company,	91,035
Penker Coal Company,	58,448
Trout Run Coal Mining Company,	58,390
Shoemaker Coal Mining Company,	42,096
Lloydell Coal Mining Company,	37,991
Priscilla Coal Mining Company,	33,363
Ivy Ridge Coal Mining Company,	28,652
Colonial Coal Company,	28,458
George W. Bailey and Company,	24,800
Alton Coal Company,	24,792
H. C. Stineman,	19,727
A. J. Haws and Sons, Limited,	17,644
Suppes Coal Company,	15,642
Riverside Coal Mining Company,	13,890
Samuel Styer,	9,630
Munster Coal Company,	7,560
Total,	6,310,389
Production by Counties	
Cambria,	6,310,389

TABLE B.—Fatal and non-fatal accidents inside and outside of mines; number of tons of coal produced per accident; number of persons employed; number employed per accident

Names of Operators	Fatal Accidents			Non-Fatal Accidents			Tons of coal produced per fatal accident inside	Tons of coal produced per non-fatal accident inside	Number of employes inside	Number of employes outside	Total number of employes	Number of employes inside per fatal accident	Number of employes outside per fatal accident	Number of employes inside per non-fatal accident	Number of employes outside per non-fatal accident
	Inside	Outside	Total	Inside	Outside	Total									
Cambria Steel Co.,	1	......	1	7	......	7	1,500,854	214,408	1,357	410	1,767	1,357	....	194	....
Pennsylvania Coal and Coke Corporation,	2	......	2	3	......	3	261,749	174,499	684	86	770	342	....	228	....
Logan Coal Co.,	2	......	2	4	......	4	261,156	130,578	539	64	603	270	....	135	....
Portage Coal Mining Co.,	......	......	......	4	......	4	....	94,081	363	31	394	....	....	91	....
Argyle Coal Co.,	2	......	2	2	......	2	172,826	172,826	308	43	351	154	....	154	....
Stineman Coal and Coke Co.,	......	......	......	1	......	1	....	314,411	347	38	385	....	....	347	....
Miller Coal Co.,	......	......	......	1	......	1	....	290,937	313	17	330	....	....	313	....
Maryland Coal Co. of Pennsylvania,	2	......	2	......	......	......	135,470	....	432	56	488	216	....	....	....
Stineman Coal Mining Co.,	......	......	......	......	1	1	....	....	255	26	281	....	....	....	26
Henriette Coal Mining Co.,	......	......	......	3	......	3	....	68,133	208	35	243	....	....	69	....
George Pearce and Sons,	......	......	......	1	......	1	....	189,626	166	16	182	....	....	166	....
Loyal Hanna Coal and Coke Co.,	......	......	......	1	......	1	....	168,257	152	17	169	....	....	152	....
Mountain Coal Co.,	2	......	2	2	......	2	78,069	78,069	204	15	219	102	....	102	....
Citizens Coal Co.,	......	......	......	3	......	3	....	42,879	130	22	152	....	....	43	....
J. Blair Kennerly,	3	......	3	......	......	......	30,738	....	60	8	68	20	....	....	....
Shoemaker Coal Mining Co.,	......	......	......	2	......	2	....	21,048	83	8	91	....	....	42	....
Lloydell Coal Mining Co.,	......	......	......	2	......	2	....	18,996	42	4	46	....	....	21	....
Colonial Coal Co.,	......	1	1	......	......	......	....	....	60	7	67	....	7	....	....
Riverside Coal Mining Co.,	1	......	1	......	......	......	13,890	....	63	5	68	63	....	....	....
Miscellaneous Companies,	......	......	......	......	......	......	....	....	1,049	100	1,149	....	....	....	....
Totals and averages for district,	15	1	16	36	1	37	420,698	175,289	6,815	1,008	7,823	454	1,008	189	1,008

TABLE C.—Classification of Fatal Accidents Inside and Outside of Mines

	Months													
	January	February	March	April	May	June	July	August	September	October	November	December	Totals	Percentages
Causes of Accidents Inside														
Falls of coal, ...	....	....	....	....	....	....	1	....	....	....	....	....	1	6.67
Falls of slate, ...	....	....	3	2	....	1	....	....	1	1	....	....	8	53.34
Falls of roof, ...	....	....	....	....	1	1	1	....	....	....	....	1	4	26.67
Mine cars, ...	1	....	....	....	....	....	....	....	....	....	....	....	1	6.66
Electricity, ...	....	1	....	....	....	....	....	....	....	....	....	....	1	6.66
Totals, ...	1	1	3	2	1	2	2	....	1	1	....	1	15	100.00
Causes of Accidents Outside														
Electricity, ...	....	....	....	....	....	....	....	1	....	....	....	....	1	100.00
Totals, ...	....	....	....	....	....	....	....	1	....	....	....	....	1	100.00
Grand totals inside and outside, ...	1	1	3	2	1	2	2	1	1	1	....	1	16	......

TABLE D.—Classification of Non-Fatal Accidents Inside and Outside of Mines

	Months													
	January	February	March	April	May	June	July	August	September	October	November	December	Totals	Percentages
Causes of Accidents Inside														
Falls of coal.	1	1	....	1	2	....	....	1	3	....	2	....	11	30.56
Falls of slate, ...	1	2	2	....	1	1	1	....	1	....	1	....	10	27.78
Falls of roof, ...	....	....	....	1	....	1	1	....	....	....	....	....	3	8.33
Mine cars, ...	2	....	1	1	....	1	1	1	1	1	....	....	9	25.00
Blasts, premature and otherwise, ...	....	....	....	....	....	....	....	....	....	....	2	....	2	5.55
Machinery, ...	....	....	....	1	....	....	....	....	....	....	....	....	1	2.78
Totals, ...	4	3	3	4	3	3	3	2	5	1	5	....	36	100.00
Causes of Accidents Outside														
Cars, ...	....	....	....	....	....	....	....	1	....	....	....	....	1	100.00
Totals, ...	....	....	....	....	....	....	....	1	....	....	....	....	1	100.00
Grand totals inside and outside, ...	4	3	3	4	3	3	3	3	5	1	5	....	37	......

TABLE E.—Occupations of Persons Killed or Fatally Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
Inside													
Miners,	1	1	3	2	1	2	2	....	1	1	....	1	15
Totals,	1	1	3	2	1	2	2	....	1	1	....	1	15
Outside													
Brakemen,	....	....	....	....	....	....	....	1	....	....	....	....	1
Totals,	....	....	....	....	....	....	....	1	....	....	....	....	1
Grand totals inside and outside,	1	1	3	2	1	2	2	1	1	1	....	1	16

TABLE F.—Occupations of Persons Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
Inside													
Miners,	3	3	2	4	3	3	2	....	4	....	5	....	29
Machine runners,	....	....	....	....	....	....	....	1	....	....	....	....	1
Drivers and runners,	1	....	1	....	....	....	1	1	....	1	....	....	5
Motormen,	....	....	....	....	....	....	....	....	1	....	....	....	1
Totals,	4	3	3	4	3	3	3	2	5	1	5	....	36
Outside													
Electricians,	....	....	....	....	....	....	....	1	....	....	....	....	1
Totals,	....	....	....	....	....	....	....	1	....	....	....	....	1
Grand totals inside and outside,	4	3	3	4	3	3	3	3	5	1	5	....	37

TABLE G.—Nationality of Persons Killed or Fatally Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
American,	....	....	....	....	....	....	1	....	....	....	....	....	1
English,	1	....	....	....	....	....	....	....	....	....	....	....	1
Polish,	....	....	1	....	....	....	....	....	1	1	....	1	4
Italian,	....	....	....	....	....	2	....	....	....	....	....	....	2
Slavonian,	....	....	1	....	....	....	....	1	....	....	....	....	2
Lithuanian,	....	....	1	....	....	....	....	....	....	....	....	....	1
Austrian,	....	....	....	....	1	....	....	....	....	....	....	....	1
French,	....	....	....	....	....	....	1	....	....	....	....	....	1
Horwat,	....	1	....	2	....	....	....	....	....	....	....	....	3
Totals,	1	1	3	2	1	2	2	1	1	1	....	1	16

TABLE H.—Nationality of Persons Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
American,	1	....	....	1	1	....	1	1	1	....	1	....	7
English,	....	....	....	....	....	....	....	....	1	....	....	....	1
Scotch,	....	1	....	....	....	....	....	....	....	....	....	....	1
Irish,	....	....	....	....	....	....	....	....	1	1	....	....	2
German,	....	....	....	1	....	....	....	....	....	....	....	....	1
Polish,	....	2	....	....	1	1	....	2	1	....	....	....	7
Hungarian,	....	....	2	....	....	2	....	....	....	....	....	....	4
Italian,	....	....	....	....	....	....	1	....	....	....	....	....	1
Slavonian,	2	....	1	1	....	....	1	....	1	....	3	....	9
Austrian,	....	....	....	1	1	....	....	....	....	....	1	....	3
French,	1	....	....	....	....	....	....	....	....	....	....	....	1
Totals,	4	3	3	4	3	3	3	3	5	1	5	....	37

TABLE I.—Operators and mines, kind of openings, type and size of fans, size of furnaces, volume of air produced by fan or furnace per minute, number of splits of air currents and number of persons employed inside

Names of Operators and Mines	Kind of opening	Gaseous or non-gaseous	Method of ventilation	Diameter of fan in feet and inches	Width of blades in feet and inches	Depth of blades in feet and inches	Number of revolutions per minute	Water gauge developed—in inches	Name of fan	Power used	Area of furnace bars in square feet	Number of splits of air currents	Number of cubic feet of air per minute entering the mine at inlet	Total number of cubic feet of air per minute circulating in all the splits	Number of cubic feet of air per minute passing out at outlet	Number of persons employed inside
Cambria Steel Co.																
Rolling Mill, ...	Drift, ...	Gaseous, ..	Fan, ...	25.0	4.0	3.8	127	6.3	Capell, ...	Steam,......	..	10	195,000	117,000	206,000	598
Franklin No. 1, ...	Drift, ...	Gaseous, ..	Fan, ...	12.0	4.5	5.5	167	3.0	Capell, ...	Steam,......	..	7	116,000	60,000	120,000	353
Franklin No. 2, ...	Slope, ...	Gaseous, ..	Fan, ...	8.6	2.3	.8	306	6.0	Sturtevant,	Electricity,.	..	6	100,000	69,000	102,000	337
Conemaugh Slope, ...	Slope, ...	Gaseous, ..	Fan, ...	12.0	4.0	3.5	105	3.0	Brazil, ...	Steam,......	..	3	23,000	16,300	25,000	69
Pennsylvania Coal and Coke Corporation																
Ehrenfeld No. 3, ...	Drift, ...	Gaseous, ..	Fan, ...	12.0	6.0	4.6	150	4.0	Capell, ...	Electricity,.	..	2	58,000	35,000	62,000	386
			Fan, ...	16.0	5.0	5.0	133	4.0	Guibal, ...	Electricity,.	..	3	52,000	38,000	59,000	
Ehrenfeld No. 8, ...	Drift, ...	Non-gas., .	Fan, ...	12.0	3.5	4.0	150	1.5	Brazil, ...	Electricity,.	..	3	27,000	16,000	29,000	106
Beaverdale No. 15, ...	Shaft,.....	Non-gas.,	Fan, ...	12.0	4.0	5.5	120	2.0	Capell, ...	Steam,......	..	3	58,000	29,000	62,000	192
Logan Coal Co.																
Logan No. 1, ...	Slope, ..	Non-gas., .	Fan, ...	16.0	4.5	4.0	90	.5	Brazil, ...	Steam,..	..	1	28,000	11,000	29,500	87
Logan No. 2, ...	Drift, ...			16.0	4.5	4.0	110	2.5	Brazil, ...		..	2	48,000	30,000	50,000	124
Logan No. 4, ...	Slope, ..			5.0	2.6	2.0	480	3.5	Robinson,		..	6	69,500	44,000	72,000	239
Logan No. 6½, ...	Slope, ..			12.0	3.3	3.3	70	.7	Brazil, ...		..	1	20,000	13,000	21,500	48
Logan No. 7, ...	Drift, ...			12.0	3.3	3.3	90	1.0	Brazil, ...		..	1	22,000	7,300	24,000	41
Portage Coal Mining Co.																
Portage No. 2, ...	Slope, ...	Non-gas., .	Fan, ...	20.0	5.0	5.0	96	2.1	Pollock, ..	Steam,......	..	6	65,000	33,587	68,000	216
Portage No. 4, ...	Shaft,.....	Non-gas., .	Fan, ...	20.0	5.0	5.0	85	1.2	Pollock, ..	Steam,......	..	3	44,000	30,000	47,000	147
Argyle Coal Co.																
Argyle No. 1, ...	Drift, ...	Gaseous, ..	Fan, ...	8.0	3.5	3.5	280	1.2	Capell, ...	Steam,......	..	3	42,000	27,000	47,000	131
Argyle No. 2, ...	Drift, ...	Gaseous, ..	Fan, ...	9.0	5.0	4.0	250	2.3	Capell, ...	Steam,......	..	3	41,000	36,000	48,000	177

Stineman Coal and Coke Co.																
Stineman No. 2, ...	Drift, ...	Non-gas., .	Fan, ...	12.0	6.0	3.0	150	3.0	Robinson,	Steam, ...	..	3	45,000	38,000	50,000	214
Stineman No. 4, ...	Slope, ...	Gaseous, ..	Fan, ...	5.0	3.0	2.2	613	7.0	Robinson,	Electricity, .	..	2	65,000	32,000	70,000	133
Miller Coal Co.																
Miller Shaft, ...	Shaft, ...	Non-gas., .	Fan, ...	20.0	7.0	4.4	85	1.75	Beard-Stine,	Steam, ...	..	5	70,000	47,000	72,000	313
Maryland Coal Co. of Pennsylvania																
Maryland Shaft, ...	Shaft, ...	Non-gas., .	Fan, ...	14.0	4.0	6.6	140	3.1	Robinson,	Steam, ...	..	5	112,000	65,000	115,000	432
Stineman Coal Mining Co.																
Stineman No. 1, ...	Drift, ...	Gaseous, ..	Fan, ...	14.0	4.0	6.6	150	4.0	Capell, ...	Steam, ...	..	3	80,000	60,000	86,000	255
Henriette Coal Mining Co.																
Henriette No. 2, ...	Shaft, ...	Non-gas., .	Fan, ...	10.0	2.5	.9	176	3.0	Sirocco, ..	Electricity, .	..	6	66,300	40,000	70,000	208
Forge Coal Mining Co.																
Forge No. 1, ...	Slope, ...	Non-gas., .	Fan, ...	12.0	4.0	3.0	110	1.5	Brazil, ...	Steam, ...	..	3	48,000	20,000	52,000	139
Forge No. 2, ...	Shaft, ...	Non-gas., .	Fan, ...	18.0	6.0	4.0	90	1.0	Brazil, ...	Steam, ...	..	2	35,000	14,000	37,000	87
George Pearce and Sons																
Excelsior No. 1, ...	Drift, ...	Non-gas., .	Fan, ...	12.0	4.0	3.5	100	.7	Brazil, ...	Steam, ...	..	1	22,650	13,000	26,000	80
Excelsior No. 2, ...	Drift, ...	Non-gas., .	Fan, ...	12.0	4.0	3.5	90	.5	Brazil, ...	Steam, ...	..	1	20,000	16,000	22,500	86
Beaver Run Coal Co.																
Beaver Run No. 1, ...	Slope, ...	Non-gas., .	Fan, ...	16.0	5.0	4.0	120	1.2	Brazil, ...	Steam, ...	..	4	76,000	36,000	80,000	180
Loyal Hanna Coal and Coke Co.																
Loyal Hanna No. 3, ...	Drift, ...	Non-gas., .	Fan, ...	12.0	4.5	4.0	140	3.0	Robinson,	Steam, ...	..	3	40,000	27,000	42,000	152
Mountain Coal Co.																
Yellow Run Shaft, ...	Shaft, ...	Non-gas., .	Fan, ...	12.0	4.0	4.5	80	1.0	Brazil, ...	Steam, ...	..	3	40,500	33,000	44,000	204
Citizens Coal Co.																
Dale No. 2, ...	Drift, ...	Non-gas., .	Fan, ...	5.0	1.0	2.0	300	.5	Stine, ...	Electricity, .	..	1	9,000	7,000	9,300	33
Green Hill, ...	Slope, ...	Non-gas., .	} Fan, ...	3.5	3.0	.5	500	1.3	Robinson,	Electricity, .	..	2	32,000	22,000	33,000	{ 26
Gautier, ...	Slope, ...	Gaseous, ..	}													{ 71
South Fork Coal Mining Co.																
South Fork No. 2, ...	Slope, ...	Non-gas., .	Fan, ...	16.0	4.4	4.0	116	2.0	Brazil, ...	Steam, ...	..	2	40,000	27,000	42,000	112
J. Blair Kennerly																
Valley No. 3, ...	Drift, ...	Non-gas., .	Fan, ...	12.0	3.5	3.6	90	1.0	Brazil, ...	Steam, ...	..	1	27,000	14,000	29,000	60
Plymouth Coal Mining Co.																
Plymouth No. 1, ...	Drift, ...	Non-gas., .	Fan, ...	14.0	4.0	4.0	86	.6	Brazil, ...	Steam, ...	..	2	25,000	18,000	27,000	105
Penker Coal Co.																
Penker No. 1, ...	Drift, ...	Non-gas., .	Fan, ...	3.0	2.2	.5	585	1.5	Robinson,	Electricity, .	..	2	22,100	12,100	23,800	53

TABLE I.—Continued

Names of Operators and Mines	Kind of opening	Gaseous or non-gaseous	Method of ventilation	Diameter of fan in feet and inches	Width of blades in feet and inches	Depth of blades in feet and inches	Number of revolutions per minute	Water gauge developed—in inches	Name of fan	Power used	Area of furnace bars in square feet	Number of splits of air currents	Number of cubic feet of air per minute entering the mine at inlet	Total number of cubic feet of air per minute circulating in all the splits	Number of cubic feet of air per minute passing out at outlet	Number of persons employed inside
Trout Run Coal Mining Co. Portage No. 5, ...	Slope, ...	Non-gas., .	Fan, ...	12.0	2.0	5.0	60	.7	Stine, ...	Steam,......	..	1	22,000	14,000	24,000	80
Shoemaker Coal Mining Co. Miller Slope, ...	Slope, ...	Non-gas., .	Fan, ...	12.0	3.7	4.0	90	.6	Brazil, ...	Steam,......	..	3	15,220	13,000	16,000	83
Lloydell Coal Mining Co. Lloydell No. 1, ...	Drift, ...	Non-gas., .	Fan, ...	7.0	1.3	3.0	240	.5	Stine, ...	Steam,......	..	1	12,000	8,600	12,900	42
Priscilla Coal Mining Co. Priscilla, ...	Drift, ...	Non-gas., .	Fan, ...	7.0	1.3	3.0	300	.6	Stine, ...	Steam,......	..	1	10,000	7,400	10,500	43
Ivy Ridge Coal Mining Co. Ivy Ridge, ...	Drift, ...	Non-gas., .	Fan, ...	10.0	3.0	2.8	130	.7	Brazil, ...	Steam,......	..	2	22,000	7,000	23,000	54
Colonial Coal Co. Knickerbocker No. 5, ...	Drift, ...	Non-gas., .	Fan, ...	6.0	4.0	1.3	200	1.1	Jeffrey, ..	Electricity, .	..	2	18,000	10,000	19,400	60
George W. Bailey and Co. Priscilla No. 3, ...	Drift, ...	Non-gas., .	Fan, ...	7.0	1.2	3.0	225	.4	Stine, ...	Steam,......	..	1	15,000	10,000	15,300	26
Alton Coal Co. Alton, ...	Drift, ...	Non-gas., .	Fan, ...	16.0	5.0	4.0	110	.8	Brazil, ...	Steam,......	..	2	28,000	14,000	29,600	30
H. C. Stineman Stineman No. 5, ...	Drift, ...	Non-gas., .	Furnace, ..	......	......	......	......	......	....	....	30	1	9,000	7,000	9,700	47

A. J. Haws and Sons, Limited Coopersdale,	Drift,	Non-gas.,	Fan,	8.0	2.6	2.2	100	.2	Brazil,	Steam,	..	1	7,600	4,000	8,000	28
Suppes Coal Co. Suppes,	Drift,	Non-gas.,	Fan,	3.0	2.3	.5	400	1.1	Robinson,	Electricity,	..	1	9,000	5,000	9,400	31
Riverside Coal Mining Co. Riverside No. 2,	Drift,	Non-gas.,	Furnace,	......	......	......	......	......	....	....	32	1	9,600	8,000	10,000	63
Samuel Styer Radnor,	Drift,	Non-gas.,	Natural,	......	......	......	......	......	....	....	..	1	2,000	1,400	2,200	11
Munster Coal Co. Plane,	Drift,	Non-gas.,	Furnace,	......	......	......	......	......	....	....	20	1	7,000	4,500	7,300	28

TABLE J.—Mines using coal cutting machines, power used, geological and local names of seams, thickest and thinnest seams where machines are used, and the approximate number of tons produced by machines

Names of Operators	Names of Mines	Kind of opening	Gaseous or non-gaseous	Number of mining machines used	Power used by machines	Geological and local names of seams	Average thickness in inches	Height of Seam in Inches		Approximate number of tons produced by machines
								Thickest	Thinnest	
Cambria Steel Co.,	Rolling Mill,	Drift,	Gaseous,	25	Compressed air,	C Prime,	45	54	36	402,060
	Franklin No. 2,	Slope,	Gaseous,	1	Compressed air,	B or Miller,	44	54	36	10,962
Totals,				26						413,022
Pennsylvania Coal and Coke Corporation,	Ehrenfeld No. 3,	Drift,	Gaseous,	15	Electricity,	B or Miller,	44	48	40	103,046
	Ehrenfeld No. 8,	Drift,	Non-gas.,	4		E or Lemon,	42	44	40	44,483
	Beaverdale No. 15,	Shaft,	Non-gas.,	2		B or Miller,	42	48	36	16,708
Totals,				21						164,237
Logan Coal Co.,	Logan No. 2,	Drift,	Non-gas.,	2	Electricity,	B or Miller,	42	44	36	26,000
	Logan No. 6½,	Slope,	Non-gas.,	2	Electricity,	D or Lower Freeport,	48	54	42	40,000
Totals,				4						66,000
Portage Coal Mining Co.,	Portage No. 2,	Slope,	Non-gas.,	9	Compressed air,	C Prime,	54	72	36	85,100
				10	Electricity,					70,600
	Portage No. 4,	Shaft,	Non-gas.,	6	Compressed air,	C Prime,	48	54	42	60,200
				3	Electricity,					35,888
Totals,				28						251,788

Maryland Coal Co. of Pennsylvania,	Maryland Shaft,	Shaft,	Non-gas.,	42	Electricity,	B or Miller,	42	48	35	270,989
Forge Coal Mining Co.,	Forge No. 1,	Slope,	Non-gas.,	12	Compressed air,	C Prime,	49	56	42	72,415
	Forge No. 2,	Shaft,	Non-gas.,	10	Compressed air,	B or Miller,	44	48	40	58,312
Totals,				22						130,727
Beaver Run Coal Co.,	Beaver Run No. 1,	Slope,	Non-gas.,	5	Electricity,	E or Lemon,	44	48	40	100,000
Trout Run Coal Mining Co.,	Portage No. 5,	Slope,	Non-gas.,	5	Compressed air,	E or Lemon,	48	60	36	31,339
				2	Electricity,					25,000
Totals,				7						56,339
Grand totals,				155						1,453,052

TABLE 1.—Operators, Location of Mines, Railroads, etc.

Names of Operators and Mines	County	Name of General Superintendent	Post Office	Name of Superintendent	Post Office	Railroad to Mine
Cambria Steel Co.						
Rolling Mill,	Cambria,	James M. Cook,	Johnstown,			Coal used by Company
Franklin Nos. 1 and 2,						
Conemaugh Slope,						
Pennsylvania Coal and Coke Corporation						
Ehrenfeld Nos. 3, 5,* 8,*	Cambria,			W. B. Alexander,	Ehrenfeld,	Pennsylvania
Beaverdale No. 15,				William Lamont,	Beaverdale,	
Logan Coal Co.						
Logan Nos. 1, 2, 4, 6,** 6½, 7,	Cambria,	I. A. Boucher,	Beaverdale,			Pennsylvania
Portage Coal Mining Co.						
Portage Nos. 2 and 4,	Cambria,	A. M. Dunsmore,	St. Benedict,	J. W. Haddick,	Portage,	Pennsylvania
Argyle Coal Co.						
Argyle Nos. 1 and 2,	Cambria,	M. J. Bracken,	Gallitzin,	J. A. Dunsmore,	South Fork,	Pennsylvania
Stineman Coal and Coke Co.						
Stineman Nos. 2 and 4,	Cambria,	W. I. Stineman,	South Fork,			Pennsylvania
Miller Coal Co.						
Miller Shaft,	Cambria,	C. B. Maxwell,	Morrisdale,	J. W. Buckwalter,	Portage,	Pennsylvania
Maryland Coal Co. of Pennsylvania						
Maryland Shaft,	Cambria,			James Keenan,	St. Michael,	Pennsylvania
Stineman Coal Mining Co.						
Stineman No. 1,	Cambria,	W. I. Stineman,	South Fork,			Pennsylvania
Henriette Coal Mining Co.						
Henriette No. 2,	Cambria,			B. E. Phillips,	Dunlo,	Pennsylvania
Forge Coal Mining Co.						
Forge Nos. 1 and 2,	Cambria,	A. M. Riddell,	Altoona,			Pennsylvania
George Pearce and Sons						
Excelsior Nos. 1 and 2,	Cambria,	Thomas J. Pearce,	Portage,			Pennsylvania

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*Formerly Ehrenfeld Nos. 6 and 8.

**Temporarily abandoned.

Beaver Run Coal Co. Beaver Run No. 1,	Cambria,	I. A. Boucher,	Beaverdale,			Pennsylvania
Loyal Hanna Coal and Coke Co. Loyal Hanna No. 3,	Cambria,			Joseph Patterson,	Onnalinda,	Pennsylvania
Mountain Coal Co. Yellow Run Shaft,	Cambria,	M. J. Bracken,	Gallitzin,	Frank Pardoe,	Dunlo,	Pennsylvania
Citizens Coal Co. Dale No. 2, Green Hill, Gautier,	Cambria,	John K. Bole,	Johnstown,			Local trade B. and O. Pennsylvania
South Fork Coal Mining Co. South Fork Nos. 1** and 2,	Cambria,			Patrick Quinn,	South Fork,	Pennsylvania
J. Blair Kennerly Valley No. 3,	Cambria,			C. C. Dovey,	Johnstown,	Pennsylvania
Plymouth Coal Mining Co. Plymouth No. 1,	Cambria,	A. Bathgate,	Coalport,	T. D. Forsyth,	Portage,	Pennsylvania
Penker Coal Co. Penker No. 1,	Cambria,			H. M. McAlarney,	Portage, R. F. D.,	Pennsylvania
Trout Run Coal Mining Co. Portage No. 5,†	Cambria,	A. M. Dunsmore,	St. Benedict,	J. W. Haddick,	Portage,	Pennsylvania
Shoemaker Coal Mining Co. Miller Slope,‡	Cambria,	T. S. Shoemaker,	Philadelphia,	William Brown,	Myra,	Pennsylvania
Lloydell Coal Mining Co. Lloydell No. 1,	Cambria,			J. J. McCann,	Lloydell,	Pennsylvania
Priscilla Coal Mining Co. Priscilla,	Cambria,			John Beckman,	South Fork,	Pennsylvania
Ivy Ridge Coal Mining Co. Ivy Ridge,	Cambria,	Thomas J. Pearce,	Portage,			Pennsylvania
Colonial Coal Co. Knickerbocker Nos. 4* and 5,	Cambria,	George E. Scott,	Philipsburg,	H. B. Scott,	Philipsburg,	Pennsylvania
George W. Bailey and Co. Priscilla No. 8,	Cambria,	John A. Leap,	Lilly,	John C. Patterson,	Lilly,	Pennsylvania
Alton Coal Co. Alton,§	Cambria,			B. E. Phillips,	Dunlo,	Pennsylvania

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**Temporarily abandoned.
*Idle.
†Formerly operated by Portage Coal Co.
‡Formerly Princess No. 6, operated by Princess Coal Mining Co. of Maryland.
§Exhausted and abandoned.

TABLE 1.—Continued

Names of Operators and Mines	County	Name of General Superintendent	Post Office	Name of Superintendent	Post Office	Railroad to Mine
H. C. Stineman Stineman Nos. 5 and 6,*	Cambria,			H. C. Stineman,	South Fork,	Pennsylvania
A. J. Haws and Sons, Limited Coopersdale,	Cambria,	John P. Thomas,	Johnstown,			Coal used by Company
Suppes Coal Co. Suppes,	Cambria,	C. H. Suppes,	Johnstown,			Local trade
Riverside Coal Mining Co. Riverside No. 2,	Cambria,	Bart C. Leonard,	South Fork,	Jonathan Andrews,	South Fork,	Pennsylvania
Samuel Styer Radnor,	Cambria,	Samuel Styer,	Philadelphia,	J. R. Houston,	Mineral Point,	Pennsylvania
Munster Coal Co. Plane,	Cambria,	H. Hahman,	Altoona,			Pennsylvania
O. M. Stineman Stineman No. 3,*	Cambria,	O. M. Stineman,	South Fork,			
Charles Ripple Ripple,‖	Cambria,	Charles Ripple,	Johnstown,			

*Idle.
‖Not under the law.

TABLE 2.—Number of tons of coal mined and tons of coke produced, number of days worked, number of persons employed, number killed and injured, quantity of powder, dynamite and permissible explosives used, etc.

Names of Operators and Mines	County	Number of tons of coal shipped to market	Number of tons used at mines for steam and heat	Number of tons sold to local trade and used by employes	Number of tons used in manufacture of coke	Total production of coal in tons	Total production of coke in tons	Number of coke ovens	Number of days worked	Number of employes	Number of fatal accidents	Number of non-fatal accidents	Explosives			Number of horses and mules
													Number of pounds of powder used	Number of pounds of dynamite used	Number of pounds of permissible explosives used	
Cambria Steel Co.																
Rolling Mill, ...	Cambria, ...	667,992	34,123	....	455	702,570	436,234	372	291	660	1	3	....	....	54,033	79
Franklin No. 1, ...		82,400	2,605	....	281,458	366,463			272	671	....	....	....	....	37,358	77
Franklin No. 2, ...		1,150	....	....	338,600	339,750			274	355	....	....	....	....	42,997	49
Conemaugh Slope, ...		88,102	3,948	....	21	92,071			291	81	....	4	....	....	14,586	11
Totals, ...	....	839,644	40,676	....	620,534	1,500,854	436,234	372	......	1,767	1	7	....	....	148,974	216
Pennsylvania Coal and Coke Corporation																
Ehrenfeld No. 3, ...	Cambria, ...	322,639	5,309	20	....	327,968	....	......	268	451	....	2	49,200	4,000	5,750	24
Ehrenfeld No. 8, ...		53,888	9,407	1,461	....	64,756	....	......	263	110	....	....	10,160	....	....	......
Beaverdale No. 15, ...		122,896	6,403	1,475	....	130,774	....	......	237	209	2	1	19,600	600	....	13
Totals, ...	....	499,423	21,119	2,956	....	523,498	....	......	......	770	2	3	78,960	4,600	5,750	37
Logan Coal Co.																
Logan No. 1, ...	Cambria, ...	65,282	934	1,874	....	68,090	....	......	228	98	....	....	3,000	700	....	11
Logan No. 2, ...		103,042	6,537	210	....	109,789	....	......	237	132	....	2	4,000	2,000	....	11
Logan No. 4, ...		249,232	5,246	565	....	255,043	....	......	262	271	2	2	8,000	4,500	....	26
Logan No. 6½, ...		52,807	3,586	767	....	57,160	....	......	250	55	....	....	3,000	2,500	....	3
Logan No. 7, ...		30,982	1,242	5	....	32,229	....	......	231	47	....	....	2,000	600	....	5
Totals, ...	....	501,345	17,545	3,421	....	522,311	....	......	......	603	2	4	20,000	10,300	....	56

TABLE 2.—Continued

Names of Operators and Mines	County	Number of tons of coal shipped to market	Number of tons used at mines for steam and heat	Number of tons sold to local trade and used by employes	Number of tons used in manufacture of coke	Total production of coal in tons	Total production of coke in tons	Number of coke ovens	Number of days worked	Number of employes	Number of fatal accidents	Number of non-fatal accidents	Explosives			Number of horses and mules
													Number of pounds of powder used	Number of pounds of dynamite used	Number of pounds of permissible explosives used	
Portage Coal Mining Co.																
Portage No. 2, ...	Cambria, ...	232,643	5,452	2,797	....	240,892	....	......	275	236	....	3	48,180	1,675	....	24
Portage No. 4, ...		130,114	5,011	307	....	135,432	....	......	279	158	....	1	27,080	1,450	....	14
Totals, ...	....	362,757	10,463	3,104	....	376,324	....	......	......	394	....	4	75,260	3,125	....	38
Argyle Coal Co.																
Argyle No. 1, ...	Cambria, ...	137,956	812	....	....	138,768	....	......	276	149	2	....	....	750	11,000	18
Argyle No. 2, ...		200,728	5,739	417	....	206,884	....	......	291	202	....	2	32,500	1,500	....	24
Totals, ...	....	338,684	6,551	417	....	345,652	....	......	......	351	2	2	32,500	2,250	11,000	42
Stineman Coal and Coke Co.																
Stineman No. 2, ...	Cambria, ...	187,834	2,716	435	....	190,985	....	......	294	233	....	....	17,400	....	....	17
Stineman No. 4, ...		117,118	6,308	....	....	123,426	....	......	299	152	....	1	11,820	....	....	16
Totals, ...	....	304,952	9,024	435	....	314,411	....	......	......	385	....	1	29,220	....	....	33
Miller Coal Co.																
Miller Shaft, ...	Cambria, ...	279,973	10,080	884	....	290,937	....	......	262	330	....	1	20,000	1,500	....	26
Maryland Coal Co. of Pennsylvania																
Maryland Shaft, ...	Cambria, ...	262,163	7,179	1,597	....	270,939	....	......	306	488	2	....	16,200	3,000	....	4
Stineman Coal Mining Co.																
Stineman No. 1, ...	Cambria, ...	228,161	4,391	....	....	232,552	....	......	297	281	....	1	36,000	....	....	19

Henriette Coal Mining Co.																
Henriette No. 2, ...	Cambria, ...	198,698	5,139	563	....	204,400	....	......	276	248	....	3	30,000	900	....	27
Forge Coal Mining Co.																
Forge No. 1, ...	Cambria, ...	111,648	4,980	....	....	116,628	....	......	259	154	....	....	7,955	....	....	10
Forge No. 2, ...		74,134	4,278	217	....	78,629	....	......	274	96	....	....	5,520	100	....	9
Totals, ...	....	185,782	9,258	217	....	195,257	....	......	......	250	....	....	13,475	100	....	19
George Pearce and Sons																
Excelsior No. 1, ...	Cambria, ...	88,578	450	....	....	89,028	....	......	294	88	....	1	3,000	75	....	7
Excelsior No. 2, ...		100,178	420	....	....	100,598	....	......	294	94	....	....	4,000	125	....	7
Totals, ...	....	188,756	870	....	....	189,626	....	......	......	182	....	1	7,000	200	....	14
Beaver Run Coal Co.																
Beaver Run No. 1, ...	Cambria, ...	169,997	3,509	578	....	174,084	....	......	262	197	....	....	1,950	1,050	....	14
Loyal Hanna Coal and Coke Co.																
Loyal Hanna No. 3, ...	Cambria, ...	164,374	3,244	639	....	168,257	....	......	254	169	....	1	20,000	1,000	....	14
Mountain Coal Co.																
Yellow Run Shaft, ...	Cambria, ...	164,374	3,244	639	....	168,257	....	......	248	219	2	2	16,130	1,000	....	20
Citizens Coal Co.																
Dale No. 2, ...	Cambria, ...	....	....	41,131	....	41,131	....	......	311	48	....	1	5,195	....	....	5
Green Hill, ...		15,608	....	7,463	....	23,071	....	......	311	29	....	....	3,080	180	....	9
Gautier, ...		64,436	....	....	....	64,436	....	......	311	75	....	2	8,814	495	140	25
Totals, ...	....	80,044	....	48,594	....	128,638	....	......	......	152	....	3	17,089	675	140	39
South Fork Coal Mining Co.																
South Fork No. 2, ...	Cambria, ...	110,476	1,702	....	....	112,178	....	......	294	127	....	....	6,306	270	....	9
J. Blair Kennerly																
Valley No. 3, ...	Cambria, ...	91,662	530	23	....	92,215	....	......	297	68	3	....	8,285	1,425	....	10
Plymouth Coal Mining Co.																
Plymouth No. 1, ...	Cambria, ...	89,702	256	1,077	....	91 035	....	......	273	111	....	....	3,740	80	....	14
Penker Coal Co.																
Penker No. 1, ...	Cambria, ...	58,152	142	154	....	58,448	....	......	217	57	....	....	7,448	430	....	9
Trout Run Coal Mining Co.																
Portage No. 5, ...	Cambria, ...	56,339	1,458	593	....	58,390	....	......	278	88	....	....	11,680	475	....	4
Shoemaker Coal Mining Co.																
Miller Slope, ...	Cambria, ...	41,688	408	....	....	42,096	....	......	185	91	....	2	4,000	220	....	10

TABLE 2.—Continued

Names of Operators and Mines	County	Number of tons of coal shipped to market	Number of tons used at mines for steam and heat	Number of tons sold to local trade and used by employes	Number of tons used in manufacture of coke	Total production of coal in tons	Total production of coke in tons	Number of coke ovens	Number of days worked	Number of employes	Number of fatal accidents	Number of non-fatal accidents	Explosives			Number of horses and mules
													Number of pounds of powder used	Number of pounds of dynamite used	Number of pounds of permissible explosives used	
Lloydell Coal Mining Co. Lloydell No. 1, ...	Cambria, ...	36,212	497	1,282	....	37,991	....	....	283	46	....	2	3,725	....	....	8
Priscilla Coal Mining Co. Priscilla, ...	Cambria, ...	32,502	861	....	....	33,363	....	....	291	47	....	....	800	....	1,800	9
Ivy Ridge Coal Mining Co. Ivy Ridge, ...	Cambria, ...	28,565	....	87	....	28,652	....	....	235	57	....	....	2,800	75	....	5
Colonial Coal Co. Knickerbocker No. 5, ...	Cambria, ...	27,688	741	29	....	28,458	....	....	247	67	1	....	....	....	....	8
George W. Bailey and Co. Priscilla No. 8, ...	Cambria, ...	24,500	300	....	....	24,800	....	....	280	29	....	....	800	....	....	6
Alton Coal Co. Alton, ...	Cambria, ...	24,245	458	89	....	24,792	....	....	177	34	....	....	....	....	....	5
H. C. Stineman Stineman No. 5, ...	Cambria, ...	19,727	....	....	....	19,727	....	....	164	52	....	....	1,500	....	....	5
A. J. Haws and Sons, Limited Cooperdale, ...	Cambria, ...	17,644	....	....	....	17,644	....	....	304	24	....	....	3,800	1,000	....	8

Suppes Coal Co. Suppes, ...	Cambria, ...	....	....	15,642	....	15,642	....	......	308	34	....	....	1,473	....	....	5
Riverside Coal Mining Co. Riverside No. 2, ...	Cambria, ...	13,835	55	....	....	13,890	....	......	113	68	1	....	1,315	50	....	7
Samuel Styer Radnor, ...	Cambria, ...	9,630	....	....	....	9,630	....	......	300	12	....	....	500	20	....	2
Munster Coal Co. Plane, ...	Cambria, ...	7,560	....	....	....	7,560	....	......	205	30	....	....	2,000	....	....	3
Grand totals, ...	....	5,444,606	160,879	84,870	620,534	6,310,889	436,234	372	......	7,822	16	37	473,956	33,695	167,664	735

TABLE 2—Part 2

Names of Operators	County	Number of Boilers					Locomotives				Number of steam engines of all classes	Total horse power	Number of pumps delivering water to surface	Capacity in gallons per minute	Quantity delivered to surface per minute—gallons	Number of electric dynamos	Number of air compressors
		Cylindrical	Horse power	Tubular	Horse power	Total horse power	Gasoline	Steam	Air	Electric							
Cambria Steel Co.,	Cambria,	8	2,200	8	710	2,910	......	......	8	8	13	4,535	23	4,865	2,880	1	13
Pennsylvania Coal and Coke Corporation,		......	......	10	1,950	1,950	......	......	......	21	7	1,880	5	700	425	8	1
Logan Coal Co.,		......	......	14	1,420	1,420	......	......	......	7	4	620	8	1,575	950	4	3
Portage Coal Mining Co.,		......	......	6	1,020	1,020	......	......	......	7	3	235	1	580	500	1	3
Argyle Coal Co.,		....	......	6	490	490	......	......	......	......	5	450	3	360	300	......	1
Stineman Coal and Coke Co.,		......	......	7	1,050	1,050	......	......	......	3	5	700	4	1,215	1,215	1	1
Miller Coal Co.,		......	......	4	800	800	......	......	......	......	5	300	2	600	400	1	1
Maryland Coal Co. of Pennsylvania,		......	......	4	1,500	1,500	......	......	......	6	5	900	3	2,440	600	1	......
Stineman Coal Mining Co.,		......	......	4	600	600	......	......	......	4	......	270	......	......	......	1	......
Henriette Coal Mining Co.,		......	......	8	1,150	1,150	......	......	......	2	5	400	2	1,500	600	2	......
Forge Coal Mining Co.,		......	......	9	1,005	1,005	......	......	......	6	8	755	2	900	500	2	2
George Pearce and Sons,		......	......	2	160	160	......	....	......	......	4	109	......	......	......	......	......
Beaver Run Coal Co.,		......	......	2	400	400	......	......	......	2	4	500	1	250	200	1	1
Loyal Hanna Coal and Coke Co.,		......	......	4	420	420	......	......	......	4	3	450	1	1,000	500	2	......
Mountain Coal Co.,		......	......	8	750	750	......	......	......	......	4	1,000	1	1,000	450	1	......
South Fork Coal Mining Co.,		......	......	3	300	300	......	......	......	......	2	100	1	250	150	......	2
J. Blair Kennerly,		......	......	1	125	125	......	......	......	......	1	60	......	......	......	......	......
Plymouth Coal Mining Co.,		......	......	1	75	75	......	......	......	......	1	80	......	......	......	......	......
Penker Coal Co.,		......	......	1	25	25	......	......	......	......	1	20	......	......	....	......	......
Trout Run Coal Mining Co.,		......	......	1	150	150	......	......	......	1	1	30	2	200	65	1	1
Shoemaker Coal Mining Co.,		......	......	4	410	410	......	......	....	......	2	80	1	300	300	......	......
Lloydell Coal Mining Co.,		......	......	1	80	80	......	......	......	......	2	80	......	......	......	......	......
Priscilla Coal Mining Co.,		......	......	1	75	75	......	......	......	......	1	60	......	......	......	......	......
Ivy Ridge Coal Mining Co.,		......	......	....	....	....	......	......	......	......	1	25	......	......	......	......	......

Colonial Coal Co.,		......	......	1	100	100	......	......	......	2	......	80	1	250	250	1	......
George W. Bailey and Co.,		......	......	1	75	75	......	......	......	......	2	65	......	......	......	......	......
Alton Coal Co.,		2	160	....	....	160	......	......	......	......	2	175	1	140	140	......	......
A. J. Haws and Sons, Limited,		......	......	....	....	....	......	......	......	......	......	......	1	50	30	......	......
Totals,	....	10	2,360	106	14,840	17,200	......	......	8	73	91	13,909	68	18,175	10,405	28	29

TABLE 3.—Number of Each Class of Employes Inside and Outside of Mines

Names of Operators	County	Inside												Outside								Grand total inside and outside
		Mine foremen	Assistant mine foremen	Fire bosses	Miners	Machine runners	Machine loaders	Machine scrapers	Drivers and runners	Doorboys and helpers	Company men	All other employes	Total inside	Superintendents	Foremen	Blacksmiths and carpenters	Engineers and firemen	Coke employes	Bookkeepers and clerks	All other employes	Total outside	
Cambria Steel Co.,	Cambria, ..	7	18	18	722	20	153	20	94	24	164	122	1,357	1	2	16	20	281	11	79	410	1,767
Pennsylvania Coal and Coke Corporation,		3	5	5	410	6	92	6	69	7	81	....	684	1	1	9	17	....	2	56	86	770
Logan Coal Co.,		5	4	....	394	3	50	3	54	3	23	....	539	1	....	10	17	....	3	33	64	603
Portage Coal Mining Co.,		2	3	....	118	12	154	12	39	....	20	3	363	1	1	3	11	....	....	15	31	394
Argyle Coal Co.,		2	2	5	248	....	....	....	27	1	23	....	308	1	1	4	6	....	2	29	43	351
Stineman Coal and Coke Co.,		2	2	3	289	....	....	....	33	2	16	....	347	....	....	4	9	....	2	23	38	385
Miller Coal Co.,		1	3	....	260	....	....	....	25	4	20	....	313	1	1	2	5	....	2	6	17	330
Maryland Coal Co. of Pennsylvania,		1	4	....	......	42	272	42	12	4	40	15	432	1	2	6	10	....	6	31	56	488
Stineman Coal Mining Co.,		1	2	1	216	....	....	....	22	3	10	....	255	1	....	3	4	....	2	16	26	281
Henriette Coal Mining Co.,		1	2	....	168	....	....	....	14	3	....	20	208	1	....	3	4	....	2	25	35	243
Forge Coal Mining Co.,		2	2	....	100	5	65	5	18	1	7	21	226	1	....	4	8	....	2	9	24	250
George Pearce and Sons,		2	....	....	145	....	....	....	16	....	3	....	166	1	1	2	3	....	2	7	16	182
Beaver Run Coal Co.,		1	2	....	45	5	96	5	14	1	11	....	180	....	....	3	4	....	1	9	17	197
Loyal Hanna Coal and Coke Co.,		1	1	....	130	....	....	....	14	....	6	....	152	1	....	3	3	....	1	9	17	169
Mountain Coal Co.,		1	1	....	162	....	....	....	12	1	23	4	204	1	....	3	4	....	1	6	15	219
Citizens Coal Co.,		3	....	1	112	....	....	....	11	....	3	....	130	1	....	1	....	....	1	19	22	152
South Fork Coal Mining Co.,		1	....	....	100	....	....	....	7	1	3	....	112	1	....	3	3	....	1	7	15	127
J. Blair Kennerly,		1	....	....	47	....	....	....	8	....	4	....	60	1	....	1	2	....	....	4	8	68
Plymouth Coal Mining Co.,		1	1	....	85	....	....	....	12	3	3	....	105	1	....	1	1	....	1	2	6	111
Penker Coal Co.,		1	1	....	42	....	....	....	8	....	1	....	53	....	....	1	1	....	....	2	4	57
Trout Run Coal Mining Co.,		1	....	....	......	4	64	4	4	....	3	....	80	....	....	2	3	....	....	3	8	88
Shoemaker Coal Mining Co.,		1	....	....	65	....	....	....	9	2	6	....	83	1	....	1	4	....	1	1	8	91
Lloydell Coal Mining Co.,		1	....	....	33	....	....	....	5	1	2	....	42	1	1	....	1	....	1	......	4	46
Priscilla Coal Mining Co.,		1	....	1	35	....	....	....	4	....	2	....	43	....	....	1	2	....	....	1	4	47
Ivy Ridge Coal Mining Co.,		1	....	....	46	....	....	....	5	....	2	....	54	1	....	1	....	....	1	......	3	57
Colonial Coal Co.,		1	....	....	49	....	....	....	6	....	4	....	60	....	....	2	1	....	1	3	7	67

George W. Bailey and Co., ..	Cambria, ..	1	....	....	20	....	....	....	3	....	2	....	26	1	....	1	1	. ..	....	......	3	29
Alton Coal Co., ...		1	....	....	25	....	....	....	2	....	2	....	30	....	....	1	2	....	....	1	4	34
H. C. Stineman, ...		1	....	....	40	....	....	....	4	1	1	....	47	1	....	1	....	....	....	3	5	52
A. J. Haws and Sons, Limited, ...		1	....	....	19	....	....	....	3	....	....	....	23	....	....	....	....	....	1	......	1	24
Suppes Coal Co., ...		1	....	....	24	....	....	....	3	....	....	3	31	....	....	1	....	....	1	1	3	34
Riverside Coal Mining Co., ..		1	....	....	52	....	....	....	6	1	2	1	68	1	....	1	....	....	....	3	5	68
Samuel Styer, ...		1	....	....	7	....	....	....	2	....	1	....	11	1	....	....	....	....	....	......	1	12
Munster Coal Co., ...		1	....	....	24	....	....	....	2	....	1	....	28	....	....	1	....	....	....	1	2	30
Totals, ...	....	58	48	34	4,232	97	946	97	567	63	489	189	6,815	24	10	95	146	281	48	404	1,008	7,823

TABLE 3.—Part 2

Names of Operators	County	Average Number of Days Worked												
		January	February	March	April	May	June	July	August	September	October	November	December	Total
Cambria Steel Co.,	Cambria,	27	24	26	26	27	25	21	21	20	23	20	22	282
Pennsylvania Coal and Coke Corporation,		23	18	20	17	19	16	25	25	22	25	22	24	256
Logan Coal Co.,		23	18	19	14	17	19	22	22	21	23	21	23	242
Portage Coal Mining Co.,		23	23	23	23	23	22	24	23	23	23	24	23	277
Argyle Coal Co.,		24	23	25	22	23	21	24	25	24	24	23	26	284
Stineman Coal and Coke Co.,		25	22	26	23	26	24	25	25	25	27	23	25	296
Miller Coal Co.,		23	22	24	24	24	22	24	25	23	23	11	17	262
Maryland Coal Co. of Pennsylvania,		27	23	26	26	26	25	25	26	25	27	25	25	306
Stineman Coal Mining Co.,		26	22	26	24	26	23	25	25	25	26	23	26	297
Henriette Coal Mining Co.,		22	21	25	24	25	25	23	25	20	25	17	24	276
Forge Coal Mining Co.,		23	22	22	18	21	22	24	24	21	24	21	24	266
George Pearce and Sons,		26	24	24	24	25	25	25	25	24	24	24	24	294
Beaver Run Coal Co.,		20	16	22	19	23	24	25	23	21	23	22	24	262
Loyal Hanna Coal and Coke Co.,		22	17	21	22	21	21	21	20	21	22	22	24	254
Mountain Coal Co.,		18	16	24	18	22	25	25	23	18	18	17	24	248
Citizens Coal Co.,		27	24	26	26	27	25	26	26	26	27	25	26	311
South Fork Coal Mining Co.,		25	23	23	24	26	24	25	26	24	26	23	25	294
J. Blair Kennerly,		27	24	25	22	26	25	26	26	25	25	22	24	297
Plymouth Coal Mining Co.,		25	22	23	15	23	20	25	25	23	23	23	26	273
Penker Coal Co.,		24	18	19	7	11	9	18	24	20	23	22	22	217
Trout Run Coal Mining Co.,		23	23	23	23	23	22	23	24	23	24	24	23	278
Shoemaker Coal Mining Co.,		......	......	12	10	17	17	18	25	22	22	20	22	185
Lloydell Coal Mining Co.,		23	21	23	25	23	25	23	26	22	26	23	23	283
Priscilla Coal Mining Co.,		26	24	24	24	26	24	23	26	21	25	23	25	291
Ivy Ridge Coal Mining Co.,		18	19	6	11	22	23	22	23	17	24	25	25	285
Colonial Coal Co.,		23	21	19	17	17	21	23	24	25	19	17	21	247
George W. Bailey and Co.,		16	15	24	26	25	26	23	24	24	26	26	25	280
Alton Coal Co.,		22	21	25	22	25	22	22	18	......	......	......	......	177
H. C. Stineman,		25	23	15	......	......	......	......	6	22	26	23	24	164
A. J. Haws and Sons, Limited,		27	24	26	26	25	24	24	24	26	27	25	26	304
Suppes Coal Co.,		27	24	26	26	27	25	26	26	25	26	25	25	308
Riverside Coal Mining Co.,		......	......	......	......	......	......	......	12	25	27	23	26	118
Samuel Styer,		26	24	25	25	26	25	25	26	24	24	25	25	300
Munster Coal Co.,		20	18	17	15	11	14	17	16	19	20	18	20	205

TABLE 4.—Fatal Accidents Inside and Outside of Mines

Date of accident		Name of Person	Nationality	Occupation	Age	Married or single	Number of widows	Number of orphans	Name of Mine	County	Nature and Cause of Accident in Brief
Jan.	8	Isaac Hardy, ...	English, ...	Miner, ...	40	S.	....	....	Argyle No. 1, ...	Cambria, .	Killed by being run over by trip of mine cars on haulage road.
Feb.	3	Tony Backala, ...	Horwat, ...	Miner, ...	25	M.	1	2	Maryland Shaft, ..		Instantly killed by coming in contact with a 500 volt electric wire while placing his auger on top of a loaded car that was standing on the entry.
March	7	Adam Eganoski, ...	Lithuanian,	Miner, ...	37	M.	1	1	Riverside No. 2, ..		Killed by fall of slate at entrance of room.
	12	John Bubak, ...	Polish,......	Miner, ...	22	M.	1	1	Valley No. 3, ...		Fatally injured by fall of slate while working at face of room.
	28	Alex Stanko.	Slavonian, ..	Miner, ...	55	M.	1	1	Logan No. 4, ...		Fatally injured by fall of slate while undermining at face of room.
April	29	Mike Bakaritch, ...	Horwat, ...	Miner, ...	24	M.	1	....	Yellow Run Shaft,		Instantly killed by fall of slate while at work at face of room. They fired a shot in the coal, which loosened the slate overhead. They immediately returned to the place and proceeded to load a car without first ascertaining the condition of the roof. It appeared from the condition of the place the following day that not much attention had been given at any time to the securing of the roof.
		Mike Colar, ...	Horwat, ...	Miner, ...	21	S.	....	....			
May	3	Anthony Copin, ...	Austrian, ..	Miner, ...	28	M.	1	1	Valley No. 3, ...		Fatally injured by fall of roof at face of pillar.
June	9	Salvatore Domnico, ..	Italian, ...	Miner, ...	37	M.	1	3	Beaverdale No. 15,		Killed by fall of slate while working at face of room.
July	12	Raeli Mattco, ...	Italian, ...	Miner, ...	30	S.	....	....	Valley No. 3, ...		Killed by fall of roof at face of pillar.
	18	Ashen Ettinne, ...	French, ...	Miner, ...	56	M.	1	....	Beaverdale No. 15,		Fatally injured by fall of coal at face of entry.
	26	Nicholas Kline, ...	American, ..	Miner, ...	43	M.	1	4	Argyle No. 1, ...		Instantly killed by fall of roof while setting props at face of pillar.
Aug.	14	Charles Screenyok, ..	Slavonian, ..	Brakeman, ..	36	M.	1	5	Knickerbocker No. 5,		Killed by coming in contact with electric wire on main haulage road between mine entrance and tipple. Outside.
Sept.	16	Andy Duboski, ...	Polish,......	Miner, ...	25	S.	....	....	Maryland Shaft, ..		Killed by fall of slate at face of pillar.
Oct.	15	Tony Kleeck, ...	Polish,......	Miner, ...	40	M.	1	4	Rolling Mill, ...		Fatally injured by fall of slate in room pillar.
Dec.	4	Mike Kowalsick, ...	Polish,......	Miner, ...	32	M.	1	1	Logan No. 4, ...		Killed by fall of roof at face of room.

TABLE 5.—Non-Fatal Accidents Inside and Outside of Mines

Date of accident		Name of Person	Nationality	Occupation	Age	Married or single	Name of Mine	County	Nature and Cause of Accident in Brief
Jan.	4	Mike Homanick,	Slavonian,	Miner,	39	M.	Henriette No. 2,	Cambria,	Leg broken by being caught under mine car in room.
	7	Allen Carroff,	French,	Miner,	49	M.	Yellow Run Shaft,		Rib fractured by fall of slate at face of room.
	11	Emory Keiper,	American,	Trip runner,	37	M.	Conemaugh Slope,		Arm taken off by being run over by trip of mine cars on slope.
	14	John Prebullo,	Slavonian,	Miner,	27	M.	Lloydell No. 1,		Leg broken by fall of coal at face of room.
Feb.	11	Leon Albricht,	Polish,	Miner,	32	M.	Miller Shaft,		Leg broken by fall of slate at face of room.
	17	Thomas Harvey,	Scotch,	Miner,	61	S.	Logan No. 4,		Leg broken by fall of coal while mining at face of room.
	22	Joe Paruch,	Polish,	Miner,	21	S.	Conemaugh Slope,		Leg fractured by fall of slate while working at face of room.
March	3	Steve Conrod,	Hungarian,	Miner,	21	S.	Miller Slope,		Leg broken by fall of slate at face of room.
	10	Joseph Conrod,	Hungarian,	Driver,	25	M.	Miller Slope,		Small bone in left ankle broken by being caught between mine cars on entry.
	26	John Markovic,	Slavonian,	Miner,	27	M.	Conemaugh Slope,		Leg and foot broken by fall of slate near face of room.
April	10	Frank Shebin,	Austrian,	Miner,	35	M.	Henriette No. 2,		Leg bruised by being caught in sheave wheel at foot of shaft.
	14	Peter Vishinofski,	Slavonian,	Miner,	40	M.	Ehrenfeld No. 3,		Leg broken by being caught between mine car and coal pillar on entry.
	21	Mike Tossong,	American,	Miner,	27	S.	Portage No. 2,		Leg fractured by fall of coal in room pillar.
	29	William Litzinger,	German,	Miner,	51	M.	Conemaugh Slope,		Collar bone fractured by fall of roof at face of room.
May	3	John Kuhur,	Austrian,	Miner,	42	M.	Logan No. 4,		Back injured and leg broken by fall of slate near face of room.
	12	Michael Szott,	Polish,	Miner,	37	M.	Rolling Mill,		Leg broken by fall of bone coal at face of room pillar.
	26	Thomas Wallace,	American,	Miner,	45	M.	Rolling Mill,		Leg broken by fall of bone coal at face of room pillar.
June	2	John Rebash,	Hungarian,	Miner,	40	S.	Portage No. 2,		Collar bone fractured by being caught between mine car and roof on entry.
	4	Mike Zemish,	Polish,	Miner,	27	S.	Rolling Mill,		Chest injured by fall of roof in pillar work.

June	13	Steve Sekera, ...	Hungarian, .	Miner, ...	26	S.	Excelsior No. 1, ...	Cambria,	Back injured by fall of slate at face of room.
July	3	James Coppitz, ...	Italian, ...	Driver, ...	20	S.	Beaverdale No. 15, ...		Leg broken by being caught between mine cars on side track.
	12	Enoch Topin, ...	Slavonian, ..	Miner, ...	25	S.	Lloydell No. 1, ...		Jaw and ankle broken by fall of slate at face of room.
	14	Alfred Michaels, ...	American, ..	Miner, ...	24	M.	Stineman No. 4, ...		Leg broken by fall of roof at face of room.
Aug.	13	Peter Genshur, ...	Polish,......	Machine runner,..	28	M.	Logan No. 2, ...		Leg broken by fall of coal at face of room while operating machine.
	19	William Dunmire, ...	American, ..	Electrician, ...	51	M.	Stineman No. 1, ...		Leg injured by being caught between electric locomotives. Outside.
	26	John Nicklitsky, ...	Polish,......	Driver, ...	24	S.	Ehrenfeld No. 3, ...		Leg broken by being thrown under trip of mine cars on haulage road.
Sept.	3	John McGoldrick, ...	Irish, ...	Miner, ...	50	S.	Argyle No. 2, ...		Arm broken by fall of coal while undermining in pillar.
	13	Edward Barry, ...	English, ...	Miner, ...	48	S.	Portage No. 2, ...		Nose broken and hips injured by fall of coal at face of entry.
	19	Wasko Roebuck, ...	Slavonian, ..	Miner, ...	35	M.	Henriette No. 2, ...		Arm fractured by fall of bone coal in room pillar.
	23	Frank Henneigh, ...	American, ..	Motorman, ...	40	M.	Portage No. 4, ...		Rib and shoulder broken by being caught between motor and roof on haulage road.
	27	Joe Wires, ...	Polish,......	Miner, ...	26	S.	Loyal Hanna No. 3, ...		Leg broken by fall of slate at face of room.
Oct.	23	William Murphy, ...	Irish, ...	Driver, ...	24	S.	Argyle No. 2, ...		Thumb and finger broken by being caught between tail chain and end of car while unhooking the chain on side track.
Nov.	6	Richard Brown, ...	American, ..	Miner, ...	26	M.	Logan No. 2, ...		Collar bone broken by fall of coal at face of room.
	11	Frank Sealean, ...	Slavonian, ..	Miner, ...	28	S.	Gautier, ...		Face and hands burned by premature blast in coal at face of room pillar.
		John Pogenell, ...	Slavonian, ..	Miner, ...	29	S.			
	20	Tony Lanka, ...	Slavonian, ..	Miner, ...	32	M.	Dale No. 2, ...		Leg broken by fall of slate at face of room.
	25	John Htulke, ...	Austrian, ..	Miner, ...	31	M.	Yellow Run Shaft, ...		Finger broken by fall of coal at face of room.

CONDITION OF MINES

CAMBRIA STEEL COMPANY

Rolling Mill—Ventilation good. Drainage good in some parts and very poor in others. The major portion of the haulage roads of the lower workings are wet and muddy, due to the lack of proper ditches and keeping the sides of entries clear of obstruction.

Franklin No. 1.—Ventilation good in some parts and fair in others. The volume of air entering the different splits is sufficient, but it is not being properly conducted around the face of some of the workings. Drainage is satisfactory, except in two of the left entries and the outer end of the traveling way.

Franklin No. 2.—The ventilation is good with one exception, the volume of air circulating in one of the splits is less than the minimum required by law. Drainage good.

Conemaugh Slope—Ventilation and drainage reasonably good.

PENNSYLVANIA COAL AND COKE CORPORATION

Ehrenfeld No. 3.—Ventilation good in some parts and only fair in others. The volume of air in circulation in each split is sufficient, but it is not being properly conducted around the face of the workings. Drainage good.

Ehrenfeld No. 8.—In good sanitary condition.

Beaverdale No. 15.—Ventilation reasonably good in some sections and only fair in others. The volume of air entering the mine is sufficient, but it is not being directed around the face of the workings. Drainage good, except at a few places on the haulage roads.

LOGAN COAL COMPANY

Logan No. 1.—The proper ventilation of this mine is difficult owing to the workings being connected at numerous points with the abandoned workings of other mines. The volume of air circulating around the face of the workings is below the minimum required by law. The mine is in a healthy condition.

Logan Nos. 2, 4, 6½ and 7.—In good condition as to ventilation and drainage.

PORTAGE COAL MINING COMPANY

Portage No. 2.—This mine as a whole is well ventilated. Drainage good, with the exception of two old entries to right of slope.

Portage No. 4.—In good condition as to ventilation and drainage.

ARGYLE COAL COMPANY

Argyle No. 1.—Ventilation and drainage good.

Argyl No. 2.—Ventilation fair. The volume of air circulating in two of the splits is below that required by law. Drainage satisfactory.

STINEMAN COAL AND COKE COMPANY

Stineman No. 2.—Ventilation and drainage excellent.

Stineman No. 4.—Ventilation reasonably good. This is a difficult mine to ventilate owing to roof conditions in entries and airways. Drainage good in some sections and defective in others.

MILLER COAL COMPANY

Miller Shaft—The ventilation is good, with the exception of the workings off No. 4 Plane and Main Heading sections, where the volume of air in circulation is inadequate to comply with the requirements of the law. Drainage satisfactory, with the exception of some minor details.

MARYLAND COAL COMPANY OF PENNSYLVANIA

Maryland Shaft—Ventilation only fair at the face of the major portion of the workings. A new fan was installed during the year, but the results were not satisfactory at the time of my last inspection of the mine. Drainage and other conditions good.

STINEMAN COAL MINING COMPANY

Stineman No. 1.—Ventilation and drainage very good.

HENRIETTE COAL MINING COMPANY

Henriette No. 2.—Ventilation good. Drainage good, except on part of the roads of Nos. 1 and 2 slants off No. 5 left heading, and part of the manway. Other conditions good.

FORGE COAL MINING COMPANY

Forge No. 1.—Ventilation good, except in a small section at the upper end of plane. Drainage good.

Forge No. 2.—Ventilation reasonably good. Drainage satisfactory.

GEORGE PEARCE AND SONS

Excelsior No. 1.—Ventilation good in the dip section and only fair in Nos. 2 and 3 right entries. Drainage good.

Excelsior No. 2.—Ventilation and drainage good.

BEAVER RUN COAL COMPANY

Beaver Run No. 1.—In good condition as to ventilation and drainage.

LOYAL HANNA COAL AND COKE COMPANY

Loyal Hanna No. 3.—Ventilation and drainage good; other conditions fair.

MOUNTAIN COAL COMPANY

Yellow Run Shaft—Ventilation in some parts is good; in other parts it is only fair. The condition of the face of some of the workings was very unsatisfactory on my last visit, due to lack of check doors. Drainage good, except on haulage roads of Nos. 5 and 6 left entries.

CITIZENS COAL COMPANY

Dale No. 2.—Ventilation and drainage good.

Green Hill and Gautier—Ventilation, drainage and other conditions, good.

SOUTH FORK COAL MINING COMPANY

South Fork No. 2.—Ventilation and drainage good.

J. BLAIR KENNERLY

Valley No. 3.—Ventilation fair. Drainage good in some parts and defective in others. Other conditions not satisfactory.

PLYMOUTH COAL MINING COMPANY

Plymouth No. 1.—Ventilation fair. A new entry is now being drawn, which, when completed, will enable a larger volume of air to be conducted to the face of the active workings. Drainage good in some sections and defective in others.

PENKER COAL COMPANY

Penker No. 1.—Ventilation fair. Drainage good, except as to some minor details.

TROUT RUN COAL MINING COMPANY

Portage No. 5.—Ventilation good in some parts and fair in others. Drainage satisfactory.

SHOEMAKER COAL MINING COMPANY

Miller Slope—Ventilation satisfactory. Drainage fair.

LLOYDELL COAL MINING COMPANY

Lloydell No. 1.—Ventilation good. Drainage very poor on major portion of haulage roads.

PRISCILLA COAL MINING COMPANY

Priscilla—Ventilation good. Drainage fair.

IVY RIDGE COAL MINING COMPANY

Ivy Ridge—Ventilation poor, due to lack of attention to the guiding and directing of the air currents in the face of the workings. The volume of air entering the mine is ample. Drainage fair.

COLONIAL COAL COMPANY

Knickerbocker No. 5.—Ventilation good. Drainage fair. Other conditions not satisfactory, especially on main haulage road.

GEORGE W. BAILEY AND COMPANY

Priscilla No. 8.—Ventilation fair. Drainage very poor.

ALTON COAL COMPANY

Alton—Ventilation and drainage good.

H. C. STINEMAN

Stineman No. 5.—Ventilation fair. Drainage good.

A. J. HAWS AND SONS, LIMITED

Coopersdale—In good sanitary condition.

SUPPES COAL COMPANY

Suppes—Ventilation good. Drainage fair.

RIVERSIDE COAL MINING COMPANY

Riverside No. 2.—Ventilation fair. A new airway is now being driven with a view of installing a fan to replace the furnace now used for ventilation. Drainage good.

SAMUEL STYER

Radnor—Ventilation weak at face of workings. It will soon be exhausted.

MUNSTER COAL COMPANY

Plane—Ventilation fair. Drainage good.

IMPROVEMENTS

CAMBRIA STEEL COMPANY

Rolling Mill—Work has been continued on enlarging and improving the main airways.

The compressed air locomotive haulage system has been extended a distance of 2,300 feet, with corresponding extension to the high pressure air lines.

One new concrete-steel overcast was built in the Klondyke district.

2,800 feet of track on the tail rope haulage system and about 2,600 feet of track on the compressed air locomotive haulage system were changed from 30 pound rail to 60 pound rail.

Franklin No. 1.—Two new electrically driven gravity hoist engines were installed and put in operation, one at the extreme end of the main second East heading, and one at the extreme end of 10 left heading. Each hoist is driven by a 2,200 volt A. C. induction motor, which takes its current from a wire carried over the surface and through a bore-hole directly to the motor. All electrical appliances connected with these hoists are fully up to the requirements of the law. The drum is driven through a two-speed set of gearing and holds 10,000 feet of ⅞ inch wire rope. Three new concrete-steel overcasts were built.

Franklin No. 2.—A new suction fan, with a propeller wheel 8 feet 6 inches in diameter, and 2 feet 4 inches wide, was installed and put in operation. The fan is driven by a 360 horse power 2,200 volt A. C. induction motor, with a three point controller.

A 500 K. W. rotary converter and transformer set, with the necessary switch boards, etc., was installed at a central point 7,500 feet inside of the mine. The high tension current is brought over the surface and taken into the mine through a bore-hole directly to the transforming station, where it is converted into 250 volts D. C. current for mine use. A fireproof room of brick, with steel door frames and doors, was constructed to house this apparatus. All electric equipment is fully in accordance with the law.

The main motor haulage was extended a distance of 4.500 feet, with the necessary extensions to trolley wires, feed wires, and 60 pound rails.

A large portion of the tracks in the room headings in the advanced workings was changed from 16 to 30 pound rails. Four five-ton electric gathering locomotives equipped with both gathering reel and crab were put in operation, reducing the number of mules employed at this mine about 50 per cent.

One new concrete-steel overcast was built.

Third left heading was extended through solid rock and an opening made in Clapboard Run Valley, thereby providing a new escapement-way and intake airway.

ARGYLE COAL COMPANY

Argyle No. 1.—Constructed 2 reinforced concrete overcasts; 80 concrete stoppings; 1 concrete lighting station and 5,600 feet of dilley road.

Argyle No. 2.—Constructed, inside, fireproof mule stable 30 by 150 feet; 50 concrete stoppings; a large number of shelter holes; 1,500 feet of wood line, and 1,200 feet of iron line to take care of drainage.

MOUNTAIN COAL COMPANY

Yellow Run Shaft—Built a new brick power house 37 by 140 feet, complete, with concrete floor and asbestos fireproof roof.

Installed one 13 by 18 inch Yough electric wood and lead-lined pump of 1,000 gallons capacity; also one 9 by 10 inch pump of the same description, capacity 500 gallons per minute, to be used as an emergency pump.

Installed new guides in hoisting shaft and a pair of latest improved Lepley self-dumping cages.

Installed a Nicholson engine stop or over-wind device on hoisting engines.

Automatic gates were placed at surface landing of shaft, and arrangements were about completed to accommodate an electric haulage system.

Completed fireproof stable inside.

Built a large number of masonry stoppings and shelter holes.

PROSECUTIONS FOR VIOLATION OF THE MINING LAWS

January 18, Woyak Bartchak, miner, Rolling Mill mine, Cambria Steel Company. Charge: Passing danger signal. Plead guilty. Sentenced to serve 20 days in the County Jail and pay a fine of $10.00 and costs.

February 26, Tony Tekechik, miner, Portage No. 4 mine, Portage Coal Mining Company. Charge: Failure to properly sprag the coal while undermining. Plead guilty. Sentenced to serve 20 days in the County Jail and pay a fine of $10.00 and costs.

February 26, Mike Tekechik, miner, Portage No. 4 mine, Portage Coal Mining Company. Charge: Failure to properly spag the coal while undermining. Plead guilty. Sentenced to serve 20 days in the County Jail and pay a fine of $10.00 and costs.

August 19, I. W. Dunlay, mine foreman, Ivy Ridge mine, Ivy Ridge Coal Mining Company. Charges: Allowing persons to work in unhealthy places; neglecting to use means to direct the ventilation to the face of workings; failure to provide shelter holes, and neglecting to measure the air as required by the law. Plead guilty. Ordered to pay costs of prosecution, with further sentence suspended.

August 19, T. J. Pearce, mine superintendent, Ivy Ridge mine, Ivy Ridge Coal Mining Company. Charges: Failure to provide a second opening and ample means of ventilation. Plead guilty. Ordered to pay costs of prosecution, with further sentence suspended.

September 27, William Roberts, mine foreman, Riverside No. 2 mine, Riverside Coal Mining Company. Charges: Failure to measure the air in the mine, and allowing persons to blast the coal before being properly mined. Plead guilty. Ordered to pay costs of prosecution, with further sentence suspended.

September 27, Jonathan Andrews, mine superintendent, Riverside No. 2 mine, Riverside Coal Mining Company. Charge: Failure to instruct the mine foreman to comply with the requirements of the law after having been duly notified. Plead guilty. Ordered to pay costs of prosecution, with further sentence suspended.

October 20, Frank Kleck, miner, Rolling Mill mine, Cambria Steel Company. Charge: Returning to work in a dangerous place after having been withdrawn by the assistant mine foreman. Plead guilty. Ordered to pay costs of prosecution, with further sentence suspended.

October 20, John Bakatich, miner, Rolling Mill mine, Cambria Steel Company. Charge: Failure to properly sprag his coal while undermining. Plead guilty. Sentenced to pay a fine of $10.00 and costs.

October 25, Frank Sealean, miner, Gautier mine, Citizens Coal Company. Charge: Using black powder for blasting coal and lighting shots with open light in a section of the mine wherein locked safety lamps were used exclusively. Plead guilty. Sentenced to serve 20 days in the County Jail and pay a fine of $10.00 and costs.

October 25, Adam Shubak, miner, Portage No. 4 mine, Portage Coal Mining Company. Charge: Failure to properly sprag the coal while undermining. Plead guilty. Sentenced to pay a fine of $10.00 and costs.

October 25, Leon Tudo, miner, Portage No. 4 mine, Portage Coal Mining Company. Charge: Failure to sprag the coal while undermining. Plead guilty. Sentenced to pay a fine of $10.00 and costs.

MINE FOREMEN'S, ASSISTANT MINE FOREMEN'S AND FIRE BOSSES' EXAMINATIONS

The annual examination of applicants for certificates of qualification as mine foremen, assistant mine foremen and fire bosses was held in the Municipal Building, Johnstown, May 6, 7 and 8. The Board of Examiners was composed of Thomas D. Williams, Inspector; J. W. Buckwalter, Superintendent; and John O. Foster, Miner.

There were 39 applicants for certificates of qualification as mine foremen and assistant mine foremen, and 24 applicants for certificates of qualification as fire bosses. The following persons passed a satisfactory examination and were granted certificates:

MINE FOREMEN

First Grade

Thomas J. Davis, Johnstown.

Second Grade

Frank Horton, Johnstown; Walter Williams, South Fork; Edward G. Miles, Portage.

ASSISTANT MINE FOREMEN

James H. Quinn, Frank Horton, John Curran, Johnstown.

FIRE BOSSES

William F. Reap, Michael Murphy, William E. Collins, Terrence J. Brennan, John Curran, John W. Slater, Johnstown; John Gage, South Fork; Richard G. Lewis, Dunlo.

SEVENTH DISTRICT

ALLEGHENY, WASHINGTON AND BEAVER COUNTIES

Crafton, Pa., February 16, 1914.

Hon. James E. Roderick, Chief of Department of Mines:

Sir: I have the honor to transmit herewith my annual report for the Seventh Bituminous District for the year ending December 31, 1913.

The report contains the usual tables, statistics and other information.

Respectfully submitted,

CHAS. P. McGREGOR, Inspector.

SUMMARY OF STATISTICS

Number of mines,	35
Number of mines in operation,	33
Number of tons of coal shipped to market,	6,114,425
Number of tons used at mines for steam and heat,	126,872
Number of tons sold to local trade and used by employes,	29,813
Number of tons used in the manufacture of coke,	....
Number of tons of coal produced,	6,271,110
Number of tons of coke produced,	....
Number of coke ovens,	....
Number of coke ovens in operation,	....
Number of tons of coal produced by pick mining,	1,152,293
Number of tons produced by compressed air machines,	....
Number of tons produced by electrical machines,	5,118,817
Number of persons employed inside of mines,	7,266
Number of persons employed outside, including coke workers,	881
Number of persons employed at manufacture of coke,	....
Number of fatal accidents inside of mines,	15
Number of fatal accidents outside,	3
Number of non-fatal accidents inside of mines,	56
Number of non-fatal accidents outside,	3
Number of tons of coal produced per fatal accident inside,	418,074
Number of tons produced per fatal accident outside,	209,037
Number of tons produced per fatal accident inside and outside,	348,395
Number of persons employed per fatal accident inside,	484
Number of persons employed per fatal accident outside,	294
Number of persons employed per fatal accident inside and outside,	453
Number of persons employed per non-fatal accident inside,	130
Number of persons employed per non-fatal accident outside,	294
Number of persons employed per non-fatal accident inside and outside,	138
Number of wives made widows,	9
Number of children made orphans,	23
Number of steam locomotives used inside of mines,	....
Number of steam locomotives used outside,	....
Number of compressed air locomotives used inside,	....
Number of compressed air locomotives used outside,	....
Number of electric motors used inside,	80
Number of electric motors used outside,	....
Number of gasoline locomotives used inside,	....
Number of fans in use,	44
Number of furnaces in use,	2
Number of gaseous mines in operation,	19
Number of non-gaseous mines in operation,	14
Number of new mines opened,	3
Number of old mines abandoned,	....

TABLE A

PRODUCTION OF COAL

Names of Operators	Tons
Pittsburgh Coal Company,	3,068,863
Carnegie Coal Company,	825,094
Pittsburgh and Eastern Coal Company,	504,240
Fayette Coal Company,	317,575
Verner Coal and Coke Company,	280,752
Pittsburgh-Buffalo Company,	251,600
Bulger Block Coal Company,	241,342
J. H. Sanford Coal Company,	208,807
Pittsburgh and Erie Coal Company,	202,000
McDonald Coal Company,	75,825
Atlas Coal Company,	66,584
W. J. Steen Coal Company,	58,833
Hugh McHugh Coal Company,	56,623
Hormel Coal Company,	47,763
Island Run Coal Company,	47,500
T. C. Conaway Coal Company,	11,959
Casey Coal Company,	5,750
Total,	6,271,110

Production by Counties

Allegheny,	3,520,143
Washington,	2,703,467
Beaver,	47,500
Total,	6,271,110

TABLE B.—Fatal and non-fatal accidents inside and outside of mines; number of tons of coal produced per accident; number of persons employed; number employed per accident

Names of Operators	Fatal Accidents			Non-Fatal Accidents			Tons of coal produced per fatal accident inside	Tons of coal produced per non-fatal accident inside	Number of employes inside	Number of employes outside	Total number of employes	Number of employes inside per fatal accident	Number of employes outside per fatal accident	Number of employes inside per non-fatal accident	Number of employes outside per non-fatal accident
	Inside	Outside	Total	Inside	Outside	Total									
Pittsburgh Coal Co.,	7	1	8	23	3	26	438,409	183,429	3,532	478	4,010	505	478	154	159
Carnegie Coal Co.,	1	......	1	4	......	4	825,094	206,274	878	68	946	878	....	220	....
Pittsburgh and Eastern Coal Co.,	2	......	2	8	......	8	252,120	63,030	511	72	583	256	....	64	....
Fayette Coal Co.,	......	1	1	......	......	......	....	....	330	32	362	....	32	....	....
Verner Coal and Coke Co.,	3	......	3	2	......	2	93,584	140,376	838	23	861	113	....	169	....
Pittsburgh-Buffalo Co.,	1	......	1	10	1	11	251,600	25,160	256	35	291	256	....	26	35
Bulger Block Coal Co.,	......	......	......	1	......	1	....	241,342	289	21	310	....	....	289	....
J. H. Sanford Coal Co.,	1	1	2	4	......	4	208,807	52,202	282	24	306	282	24	71	....
Pittsburgh and Erie Coal Co.,	......	......	......	1	......	1	....	202,000	230	35	265	....	....	230	....
Atlas Coal Co.,	......	......	......	1	......	1	....	66,584	197	39	236	....	....	197	....
Hormel Coal Co.,	......	......	......	1	......	1	....	47,763	66	9	75	....	....	66	....
Miscellaneous Companies,	......	......	......	......	......	......	....	....	357	45	402	....	....	....	....
Totals and averages for district,	15	3	18	56	3	59	418,074	111,984	7,266	881	8,147	484	294	130	294

TABLE C.—Classification of Fatal Accidents Inside and Outside of Mines

	Months													
	January	February	March	April	May	June	July	August	September	October	November	December	Totals	Percentages
Causes of Accidents Inside														
Falls of slate,	....	....	....	....	1	1	....	1	....	....	....	....	3	20.00
Falls of roof,	....	....	....	....	1	....	....	3	....	....	....	....	4	26.67
Mine cars,	1	1	....	....	1	....	1	1	....	....	1	....	6	40.00
Electricity,	....	....	....	....	....	....	1	....	....	1	....	....	2	13.33
Totals,	1	1	....	....	3	1	2	5	....	1	1	....	15	100.00
Causes of Accidents Outside														
Cars,	....	....	....	....	....	....	....	1	....	1	....	....	2	66.67
Electricity,	....	....	....	....	....	....	1	....	....	....	....	....	1	33.33
Totals,	....	....	....	....	....	....	1	1	....	1	....	....	3	100.00
Grand totals inside and outside,	1	1	....	....	3	1	3	6	....	2	1	....	18	......

TABLE D.—Classification of Non-Fatal Accidents Inside and Outside of Mines

	Months													
	January	February	March	April	May	June	July	August	September	October	November	December	Totals	Percentages
Causes of Accidents Inside														
Falls of coal,	....	1	1	....	1	....	2	1	....	2	1	1	10	17.86
Falls of slate,	2	1	2	2	2	1	2	3	2	3	2	....	21	37.50
Falls of roof,	1	....	....	....	....	....	....	....	....	1	....	1	3	5.36
Mine cars,	1	2	4	1	....	....	1	....	1	1	1	1	13	23.22
Explosion of gas and dust,	....	....	....	....	....	....	....	1	....	....	....	....	1	1.78
Blasts, premature and otherwise,	....	....	....	....	....	1	....	....	....	....	....	....	1	1.78
Mules,	....	....	....	....	....	....	1	1	....	1	....	....	3	5.36
Machinery,	....	....	1	....	....	1	....	1	....	....	....	....	3	5.36
By cage,	1	....	....	....	....	....	....	....	....	....	....	....	1	1.78
Totals,	5	4	8	3	3	3	6	6	3	8	4	3	56	100.00
Causes of Accidents Outside														
Cars,	....	....	....	....	1	....	....	....	....	....	....	....	1	33.33
Struck by pole,	1	....	....	....	....	....	....	....	....	....	....	....	1	33.33
By mules,	....	....	....	....	....	....	....	1	....	....	....	....	1	33.34
Totals,	1	....	....	....	1	....	....	1	....	....	....	....	3	100.00
Grand totals inside and outside,	6	4	8	3	4	3	6	7	3	8	4	3	59	......

TABLE E.—Occupations of Persons Killed or Fatally Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
Inside													
Miners,	....	....	....	....	1	....	....	1	....	1	....	....	3
Machine loaders,	1	1	....	....	1	1	....	2	....	....	....	....	6
Machine scrapers,	....	....	....	....	....	....	1	1	....	....	....	....	2
Engineers,	....	....	....	....	....	....	....	....	....	....	1	....	1
Trappers,	....	....	....	....	....	....	1	....	....	....	....	....	1
Laborers,	....	....	....	....	....	....	....	1	....	....	....	....	1
Blacksmiths,	....	....	....	....	1	....	....	....	....	....	....	....	1
Totals,	1	1	....	....	3	1	2	5	....	1	1	....	15
Outside													
Trip-riders,	....	....	....	....	....	....	....	1	....	....	....	....	1
Loaders,	....	....	....	....	....	....	1	....	....	....	....	....	1
Laborers,	....	....	....	....	....	....	....	....	....	1	....	....	1
Totals,	....	....	....	....	....	....	1	1	....	1	....	....	3
Grand totals inside and outside,	1	1	....	....	3	1	3	6	....	2	1	....	18

TABLE F.—Occupations of Persons Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
Inside													
Miners,	....	....	1	....	1	....	2	1	1	2	2	....	10
Machine runners,	....	....	....	....	1	....	....	....	....	1	....	....	2
Machine loaders,	5	2	2	1	1	2	2	2	1	2	1	1	22
Machine scrapers,	....	....	2	....	....	1	....	2	....	1	....	1	7
Drivers and runners,	....	1	....	1	....	....	1	1	....	2	1	1	8
Motormen,	....	1	....	....	....	....	....	....	....	....	....	....	1
Brakemen,	....	....	2	....	....	....	....	....	....	....	....	....	2
Bratticemen,	....	....	1	....	....	....	....	....	....	....	....	....	1
Laborers,	....	....	....	1	....	....	....	....	....	....	....	....	1
Blacksmiths,	....	....	....	....	....	....	1	....	....	....	....	....	1
Snappers,	....	....	....	....	....	....	....	....	1	....	....	....	1
Totals,	5	4	8	3	3	3	6	6	3	8	4	3	56
Outside													
Laborers,	1	....	....	....	1	....	....	1	....	....	....	....	3
Totals,	1	....	....	....	1	....	....	1	....	....	....	....	3
Grand totals inside and outside,	6	4	8	3	4	3	6	7	3	8	4	3	59

TABLE G.—Nationality of Persons Killed or Fatally Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
American,	....	....	....	....	....	....	1	1	....	....	....	....	2
Irish,	....	....	....	....	....	....	....	....	....	1	....	....	1
Polish,	....	....	....	....	....	....	....	....	....	....	1	....	1
Hungarian,	....	....	....	....	1	....	....	1	....	....	....	....	2
Slavonian,	....	....	....	....	....	....	....	1	....	....	....	....	1
Lithuanian,	....	....	....	....	1	....	1	1	....	....	....	....	3
Austrian,	....	1	....	....	....	1	1	1	....	1	....	....	5
Tyrolean,	....	....	....	....	....	....	....	1	....	....	....	....	1
Belgian,	1	....	....	....	1	....	....	....	....	....	....	....	2
Totals,	1	1	....	....	3	1	3	6	....	2	1	....	18

TABLE H.—Nationality of Persons Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
American,	1	1	....	2	1	2	1	....	....	....	....	1	9
English,	....	....	....	....	1	....	1	....	....	....	1	1	4
German,	....	....	....	....	....	....	1	....	....	....	....	....	1
Polish,	1	1	3	....	....	....	1	2	1	1	....	1	11
Hungarian,	....	....	1	....	....	....	....	....	....	1	....	....	2
Italian,	1	....	3	....	....	....	1	2	....	....	1	....	8
Slavonian,	2	....	....	1	....	....	1	....	2	1	1	....	8
Lithuanian,	1	....	....	....	....	....	....	....	....	1	....	....	2
Austrian,	....	....	....	....	....	1	....	1	....	1	....	....	3
Russian,	....	1	....	....	2	....	....	....	....	....	....	....	3
Greek,	....	....	....	....	....	....	....	1	....	1	....	....	2
French,	....	....	....	....	....	....	....	....	....	....	1	....	1
Belgian,	....	1	1	....	....	....	....	....	....	2	....	....	4
Finnish,	....	....	....	....	....	....	....	1	....	....	....	....	1
Totals,	6	4	8	3	4	3	6	7	3	8	4	3	59

TABLE I.—Operators and mines, kind of openings, type and size of fans, size of furnaces, volume of air produced by fan or furnace per minute, number of splits of air currents and number of persons employed inside

Names of Operators and Mines	Kind of opening	Gaseous or non-gaseous	Method of ventilation	Diameter of fan in feet and inches	Width of blades in feet and inches	Depth of blades in feet and inches	Number of revolutions per minute	Water gauge developed—in inches	Name of fan	Power used	Area of furnace bars in square feet	Number of splits of air currents	Number of cubic feet of air per minute entering the mine at inlet	Total number of cubic feet of air per minute circulating in all the splits	Number of cubic feet of air per minute passing out at outlet	Number of persons employed inside
Pittsburgh Coal Co.																
Brier Hill, ...	Drift,.....	Gaseous, ..	Fan, ...	20.0	8.0	6.0	95	2.5	Vulcan, ...	Electricity,	..	6	125,400	55,380	138,600	230
Champion, ...	Drift,.....	Gaseous, ..	Fan, ...	6.0	2.6	2.0	350	.6	Stine, ...	Electricity,	..	6	102.500	56,000	114,000	283
				6.0	2.6	2.0	350	.6								
Dickson, ...	Drift,.....	Non-gas.,	Fan, ...	6.0	2.6	2.0	285	.6	Stine, ...	Electricity,	..	4	112,000	40,960	117,000	206
				8.0	2.6	3.0	265	.4								
Essen No. 3, ...	Slope,.....	Gaseous, ..	Fan, ...	12.0	6.6	5.0	190	2.6	Capell, ...	Steam,....	..	6	118,500	80,220	122,000	337
				20.0	4.9	5.7	68	.6	Robinson, .							
Grant, ...	Drift,.....	Non-gas.,	Fan, ...	7.0	2.6	2.0	250	.4	Stine, ...	Electricity,	..	6	57,600	48,500	60,000	298
				5.0	2.5	2.0	250	.4								
Jumbo, ...	Drift,.....	Gaseous, ..	Fan, ...	20.0	5.5	6.0	100	2.2	Guibal, ...	Steam,......	..	8	132,600	72,500	144,800	394
				6.0	2.0	......	300	.5	Clark, ...							
Margerum, ...	Drift,.....	Non-gas.,	Fan, ...	6.0	2.0	......	300	.5	Clark, ...	Electricity,	..	4	150,000	64,280	165,900	250
				7.0	1.4	2.0	380	.5	Stine, ...							
Moon Run No. 1, ...	Drift,.....	Non-gas.,	Fan, ...	18.0	6.0	2.6	76	1.4	Brazil, ...	Steam,......		7	174,600	92,700	182,500	310
				7.0	2.6	2.0	312	.2	Stine, ...	Electricity,						
Moon Run No. 2, ...*.....	Drift,.....	Non-gas.,	Fan, ...	6.0	......	......	375	.7	Clark, ...	Electricity,	..	6	....	....	....	....
				8.0	6.0	3.6	375	.4	Capell, ..							
Moon Run No. 3, ...	Drift,.....	Non-gas.,	Fan, ...	7.0	2.6	.....	420	.4	Stine	Electricity,		3	....	....	....	....
*O. I. C., ...	Drift,.....	Gaseous, ..	Fan, ...	12.0	5.0	8.0	......	......	Pollock, ...	Steam,......						
				18.0	8.0	5.0	80	.4	Brazil, ...	Steam,......						
				8.0	2.6	2.0	300	.5	Buffalo, ...	Electricity,						
Partridge, ...	Drift,.....	Gaseous, ..	Fan, ...	7.0	2.6	2.0	300	.5	Stine, ...	Electricity,		11	213,700	118,900	224,200	438
				6.0	2.6	2.0	480	.6	Stine, ...	Electricity,						
				6.0	2.6	2.0	480	.4	Stine, ...	Electricity,						
Shaw, ...	Drift,.....	Non-gas.,	Fan, ...	20.0	6.2	5.8	140	.2	Brazil, ...	Electricity,	..	6	96,500	45,200	101,500	264

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*Idle.

Carnegie Coal Co.																
Carnegie, ...	Drift,.....	Gaseous, ..	Fan, ...	9.0	6.0	4.1	200	1.7	Capell, ...	Steam,......	..	1	86,300	23,400	95,000	87
Oakdale, ...	Drift,.....	Non-gas.,	Fan, ...	12.0 12.0	3.6 3.6	3.0 3.4	95 120	.6 .7	Brazil, ...	Electricity,	..	7	133,560	75,920	140,000	340
Primrose, ...	Drift,.....	Gaseous, ..	Fan, ...	13.6	7.0	5.6	192	2.6	Capell, ...	Steam,......	..	6	99,800	65,140	107,800	451
Pittsburgh and Eastern Coal Co.																
*Pittsburgh and Eastern No. 1, ...	Shaft, ...	Gaseous, ..	Fan, ...	20.0	9.0	5.0	92	1.7	Pollock, ..	Steam,......		..	90,000	....	....	4
Pittsburgh and Eastern No. 2, ...	Shaft, ...	Gaseous, ..	Fan, ...	20.0	9.0	5.0	90	2.0				6	107,500	53,060	113,400	249
Pittsburgh and Eastern No. 3, ...	Shaft, ...	Gaseous, ..	Fan, ...	20.0	9.0	5.0	80	1.6				4	109,400	38,640	114,500	258
Fayette Coal Co.																
Chalfant, ...	Drift,.....	Gaseous, ..	Fan, ...	12.0	5.2	4.6	250	2.5	Capell, ...	Steam,......	..	7	124,500	78,700	136,000	330
Verner Coal and Coke Co.																
Verner, ...	Slope,.....	Gaseous, ..	Fan, ...	9.0	7.0	4.5	242	2.7	Capell, ...	Electricity,.	..	7	100,000	67,100	104,500	338
Pittsburgh-Buffalo Co.																
Francis, ...	Slope,.....	Gaseous, ..	Fan, ...	14.0	5.0	6.0	100	2.	Pollock, ...	Steam,......	..	3	82,000	42,100	89,100	256
Bulger Block Coal Co.																
Bulger, ...	Shaft, ...	Gaseous, ..	Fan, ...	10.0	4.8	4.4	215	1.3	Capell, ...	Steam,......	..	4	72,500	47,000	79,000	289
J. H. Sanford Coal Co.																
Armide, ...	Drift,.....	Gaseous, ..	Fan, ...	8.0	5.0	2.6	250	.8	Stine, ...	Electricity,	..	4	70,560	38,550	75,000	282
Pittsburgh and Erie Coal Co.																
Erie No. 1, ...	Slope,.....	Gaseous, ..	Fan, ...	20.0	6.0	4.0	90	2.5	Pollock, ...	Steam,......	..	4	95,000	44,900	99,500	230
McDonald Coal Co.																
Willow Grove, ...	Drift,.....	Non-gas.,	Fan, ...	8.0	2.6	2.0	500	.5	Stine, ...	Electricity,	..	1	29,500	25,000	37,000	93
Atlas Coal Co.																
Atlas, ...	Shaft, ...	Gaseous, ..	Fan, ...	16.0	4.5	5.0	60	2.0	Jeffrey, ...	Steam,......	..	6	125,400	82,270	133,300	197
W. J. Steen Coal Co.																
Willa, ...	Drift,.....	Gaseous, ..	Fan, ...	8.0	4.0	3.9	180	1.4	Capell, ...	Electricity,	..	1	22,400	10,500	26,000	60
Hugh McHugh Coal Co.																
Cherry, ...	Drift,.....	Non-gas.,	Furnace,..	......	......	......	......	......	....	....	64	2	18,200	13,500	20,500	96
Hormel Coal Co.																
Federal No. 2, ...	Drift,.....	Non-gas.,	Fan, ...	6.0	2.6	2.0	250	.6	Stine, ...	Electricity,	..	2	21,000	12,000	24,000	66

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*Idle.

TABLE I.—Continued

Names of Operators and Mines	Kind of opening	Gaseous or non-gaseous	Method of ventilation	Diameter of fan in feet and inches	Width of blades in feet and inches	Depth of blades in feet and inches	Number of revolutions per minute	Water gauge developed—in inches	Name of fan	Power used	Area of furnace bars in square feet	Number of splits of air currents	Number of cubic feet of air per minute entering the mine at inlet	Total number of cubic feet of air per minute circulating in all the splits	Number of cubic feet of air per minute passing out at outlet	Number of persons employed inside
Island Run Coal Co. Dawson, ...	Drift,.....	Non-gas.,	Fan, ...	6.0	4.0	2.0	300	.6	Capell, ...	Electricity,	..	2	22,500	12,000	24,500	54
T. C. Conaway Coal Co. Catherine, ...	Drift,.....	Gaseous, ..	Fan, ...	12.0	4.0	3.0	85	.2	Wilson, ...	Electricity,	..	2	18,500	14,000	22,000	48
Casey Coal Co. Shamrock, ...	Drift,.....	Non-gas.,	Furnace,..	......	......	......	......	......	....	....	54	1	11,540	7,000	12,480	6

TABLE J.—Mines using coal cutting machines, power used, geological and local names of seams, thickest and thinnest seams where machines are used, and the approximate number of tons produced by machines

Names of Operators	Names of Mines	Kind of opening	Gaseous or non-gaseous	Number of mining machines used	Power used by machines	Geological and local names of seams	Average thickness in inches	Height of Seam in Inches		Approximate number of tons produced by machines
								Thickest	Thinnest	
Pittsburgh Coal Co.,	Brier Hill,	Drift,	Gaseous,	11	Electricity,	Pittsburgh,	56	62	50	90,366
	Champion,	Drift,	Gaseous,	12			64	70	58	190,748
	Dickson,	Drift,	Non-gas.,	9			59	62	60	183,809
	Essen No. 3,	Slope,	Gaseous,	16			65	72	58	280,118
	Grant,	Drift,	Non-gas.,	9			60	67	54	175,034
	Jumbo,	Drift,	Gaseous,	20			58	68	48	253,803
	Margerum,	Drift,	Non-gas.,	11			66	76	56	214,608
	Moon Run No. 1,	Drift,	Non-gas.,	6			64	74	54	621,479
	Moon Run No. 2,	Drift,	Non-gas.,	10			64	74	54	
	Moon Run No. 3,	Drift,	Non-gas.,	8			64	74	54	
	Partridge,	Drift,	Gaseous,	18			61	66	56	304,018
	Shaw,	Drift,	Non-gas.,	10			61	66	56	100,686
Totals,				140						2,414,664
Carnegie Coal Co.,	Carnegie,	Drift,	Gaseous,	4	Electricity,	Pittsburgh,	54	60	48	45,395
	Oakdale,	Drift,	Non-gas.,	14			65	72	58	352,022
	Primrose,	Drift,	Gaseous,	22			64	68	60	308,895
Totals,				40						706,312
Pittsburgh and Eastern Coal Co.,	Pittsburgh and Eastern No. 2,	Shaft,	Gaseous,	13	Electricity,	Pittsburgh,	61	61	58	233,796
	Pittsburgh and Eastern No. 3,	Shaft,	Gaseous,	13						264,490
Totals,				26						498,286

TABLE J.—Continued

Names of Operators	Names of Mines	Kind of opening	Gaseous or non-gaseous	Number of mining machines used	Power used by machines	Geological and local names of seams	Average thickness in inches	Height of Seam in Inches		Approximate number of tons produced by machines
								Thickest	Thinnest	
Fayette Coal Co.,	Chalfant,	Drift,	Gaseous,	18	Electricity,	Pittsburgh,	66	70	62	263,292
Verner Coal and Coke Co.,	Verner,	Slope,	Gaseous,	18			55	62	48	174,663
Pittsburgh-Buffalo Co.,	Francis,	Slope,	Gaseous,	14			57	60	54	251,600
Bulger Block Coal Co.,	Bulger,	Shaft,	Gaseous,	13			60	66	54	142,742
J. H. Sanford Coal Co.,	Armide,	Drift,	Gaseous,	14			62	70	54	206,694
Pittsburgh and Erie Coal Co.,	Erie No. 1,	Slope,	Gaseous,	12			54	60	48	202,000
McDonald Coal Co.,	Willow Grove,	Drift,	Non-gas.,	3			64	70	58	42,060
Atlas Coal Co.,	Atlas,	Shaft,	Gaseous,	6			63	66	60	65,987
W. J. Steen Coal Co.,	Willa,	Drift,	Gaseous,	8			63	67	59	46,408
Hugh McHugh Coal Co.,	Cherry,	Drift,	Non-gas.,	3			60	62	58	33,855
Hormel Coal Co.,	Federal No. 2,	Drift,	Non-gas.,	3			66	74	58	21,577
Island Run Coal Co.,	Dawson,	Drift,	Non-gas.,	8	Electricity,	Lower Freeport,	39	45	32	45,700
T. C. Conaway Coal Co.,	Catherine,	Drift,	Gaseous,	2	Electricity,	Pittsburgh,	67	72	62	2,982
Grand totals,				313						5,118,817

TABLE 1.—Operators, Location of Mines, Railroads, etc.

Names of Operators and Mines	County	Name of General Superintendent	Post Office	Name of Superintendent	Post Office	Railroad to Mine
Pittsburgh Coal Co.						
Brier Hill,	Washington,	George W. Schluederberg,	Pittsburgh,	James Davidson,	McDonald,	P. C. C. and St. L.
Champion,	Allegheny,			James Davidson,	McDonald,	P. C. C. and St. L.
Dickson,	Allegheny,			Jules Waterloo,	Imperial,	Montour
Essen No. 3,	Allegheny,			J. M. Sloan,	Burdine,	P. C. and Y.
Grant,	Allegheny,			Harry Cattley,	Loupnex,	P. C. C. and St. L.
Jumbo,	Washington,			James Davidson,	McDonald,	P. C. C. and St. L.
Margerum,	Allegheny,			Jules Waterloo,	Imperial,	Montour
Moon Run Nos. 1, 2, 3,	Allegheny,			Samuel Pritchard,	Moon Run,	Pittsburgh and Moon Run
*O. I. C.,	Allegheny,			James Sloan,	Imperial,	P. C. and Y.
Partridge,	Allegheny,			Jules Waterloo,	Imperial,	Montour
Shaw,	Washington,			Howard Burns,	Midway,	P. C. C. and St. L.
Carnegie Coal Co.						
Carnegie,	Allegheny,	G. F. Osler,	Pittsburgh,	Arch Robertson,	Carnegie,	P. C. C. and St. L.
Oakdale,	Allegheny,			Joseph Linden,	Oakdale,	
Primrose,	Washington,			T. D. Smith,	McDonald,	
Pittsburgh and Eastern Coal Co.						
*Pittsburgh and Eastern No. 1,	Washington,	Robert McKinney,	Cherry Valley,	Samuel Peck,	Cherry Valley,	P. C. C. and St. L.
Pittsburgh and Eastern No. 2,				James Delaney,		
Pittsburgh and Eastern No. 3,				Mac Couch,		
Fayette Coal Co.						
Chalfant,	Allegheny,	A. M. Bell,	Pittsburgh,	J. C. Kennedy,	Noblestown,	P. C. C. and St. L.
Verner Coal and Coke Co.						
Verner,	Washington,	Thomas Beadling,	Carnegie,	Thomas Beadling,	Carnegie,	P. C. C. and St. L.
Pittsburgh-Buffalo Co.						
Francis,	Washington,	Harris Booker,	Canonsburg,	C. A. Miller,	Burgettstown,	P. C. C. and St. L.
Bulger Block Coal Co.						
Bulger,	Washington,	D. G. Kennedy,	Pittsburgh,	A. G. Hunt,	Bulger,	P. C. C. and St. L.
J. H. Sanford Coal Co.						
Arnide,	Washington,	G. F. Osler,	Pittsburgh,	J. P. McCune,	Burgettstown,	P. C. C. and St. L.

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*Idle.

TABLE 1.—Continued

Names of Operators and Mines	County	Name of General Superintendent	Post Office	Name of Superintendent	Post Office	Railroad to Mine
Pittsburgh and Erie Coal Co. Erie No. 1,	Washington,	T. F. Whalen,	Pittsburgh,	James Rooney,	South Burgettstown,	P. C. C. and St. L.
McDonald Coal Co. Willow Grove,	Allegheny,	W. S. Lockhart,	McDonald,	Robert Young,	McDonald,	P. C. C. and St. L.
Atlas Coal Co. Atlas,	Washington.	W. A. McBride,	Atlasburg,	M. A. McBride,	Atlasburg,	P. C. C. and St. L.
W. J. Steen Coal Co. Willa,	Allegheny,	W. J. Steen,	Woodville,	Thomas Cox,	Bridgeville,	P. C. C. and St. L.
Hugh McHugh Coal Co. Cherry,	Allegheny,	Hugh McHugh,	Rennerdale,	John McKay,	Oakdale,	P. C. C. and St. L.
Hormel Coal Co. Federal No. 2,	Allegheny,	P. J. Hormel,	Hickman,	P. J. Hormel,	Hickman,	P. C. C. and St. L.
Island Run Coal Co. Dawson,	Beaver,	W. R. Griffin,	East Liverpool, Ohio,	H. S. Miller,	East Liverpool, Ohio,	Eastern Ohio
T. C. Conaway Coal Co. Catherine,	Allegheny,	John F. Kelley,	Bridgeville,	John F. Kelley,	Bridgeville,	P. C. and Y.
Casey Coal Co. Shamrock,	Allegheny,	D. G. McGarry,	Carnegie,	D. G. McGarry,	Carnegie,	Local Trade

TABLE 2.—Number of tons of coal mined and tons of coke produced, number of days worked, number of persons employed, number killed and injured, quantity of powder, dynamite and permissible explosives used, etc.

Names of Operators and Mines	County	Number of tons of coal shipped to market	Number of tons used at mines for steam and heat	Number of tons sold to local trade and used by employes	Number of tons used in manufacture of coke	Total production of coal in tons	Total production of coke in tons	Number of coke ovens	Number of days worked	Number of employes	Number of fatal accidents	Number of non-fatal accidents	Explosives			Number of horses and mules
													Number of pounds of powder used	Number of pounds of dynamite used	Number of pounds of permissible explosives used	
Pittsburgh Coal Co.																
Brier Hill, ...	Washington, ...	106,268	704	915	....	107,887	....	......	132	260	1	....	21,562	95	50	22
Champion, ...	Allegheny, ...	231,142	76	188	....	231,406	....	......	194	324	2	3	31,550	170	50	23
Dickson, ...	Allegheny, ...	217,680	2,900	....	....	220,580	....	......	255	241	....	2	29,390	900	....	15
Essen No. 3, ...	Allegheny, ...	319,718	6,381	417	....	326,516	....	......	243	380	1	3	....	....	....	26
Grant, ...	Allegheny, ...	223,851	2,547	831	....	227,229	....	......	209	316	....	2	29,520	....	....	22
Jumbo, ...	Washington, ...	292,840	12,527	4,338	....	309,705	....	......	218	459	1	6	53,113	325	225	42
Margerum, ...	Allegheny, ...	255,258	10	3,539	....	258,807	....	......	258	282	1	....	35,169	200	....	22
Moon Run Nos. 1, 2, 3,	Allegheny, ...	848,088	8,587	1,958	....	858,633	....	......	293	952	1	3	157,180	2,000	....	65
Partridge, ...	Allegheny, ...	397,944	12,614	777	....	411,335	....	......	252	495	1	3	55,684	750	....	35
Shaw, ...	Washington, ...	115,591	....	1,174	....	116,765	....	......	155	301	....	4	10,000	510	....	15
Totals, ...	....	3,008,380	46,346	14,137	....	3,068,863	....	......	......	4,010	8	26	423,168	4,950	325	287
Carnegie Coal Co.																
Carnegie, ...	Allegheny, ...	78,207	2,125	....	....	80,332	....	......	266	94	....	....	10,030	....	....	7
Oakdale, ...	Allegheny, ...	327,742	3,235	....	....	330,977	....	......	240	366	....	....	41,600	2,300	....	19
Primrose, ...	Washington, ...	406,269	7,063	453	....	413,785	....	......	237	486	1	4	53,070	215	....	28
Totals, ...	....	812,218	12,423	453	....	825,094	....	......	......	946	1	4	104,700	2,515	....	54

TABLE 2.—Continued

Names of Operators and Mines	County	Number of tons of coal shipped to market	Number of tons used at mines for steam and heat	Number of tons sold to local trade and used by employes	Number of tons used in manufacture of coke	Total production of coal in tons	Total production of coke in tons	Number of coke ovens	Number of days worked	Number of employes	Number of fatal accidents	Number of non-fatal accidents	Explosives			Number of horses and mules
													Number of pounds of powder used	Number of pounds of dynamite used	Number of pounds of permissible explosives used	
Pittsburgh and Eastern Coal Co.																
Pittsburgh and Eastern No. 1,	Washington,	....	2,820	....	....	2,820	....	......	......	8	....	....	340	....	....	1
Pittsburgh and Eastern No. 2,		228,226	5,570	....	....	233,796	....	......	226	280	....	3	13,010	4,000	....	14
Pittsburgh and Eastern No. 3,		252,700	11,040	3,884	....	267,624	....	......	245	295	2	5	14,625	6,000	....	15
Totals,		480,926	19,430	3,884	....	504,240	....	......	......	583	2	8	27,975	10,000	....	30
Fayette Coal Co. Chalfant,	Allegheny,	307,944	8,859	772	....	317,575	....	......	235	362	1	....	22,500	1,500	....	23
Verner Coal and Coke Co. Verner,	Washington,	279,755	....	997	....	280,752	....	......	236	361	3	2	....	....	....	7
Pittsburgh-Buffalo Co. Francis,	Washington,	233,000	18,000	600	....	251,600	....	......	293	291	1	11	35,000	500	....	15
Bulger Block Coal Co. Bulger,	Washington,	234,718	6,060	564	....	241,342	....	......	265	310	....	1	3,000	500	....	16
J. H. Sanford Coal Co Armide,	Washington,	203,150	5,003	654	....	208,807	....	......	246	306	2	4	26,500	700	....	......

Pittsburgh and Erie Coal Co. Erie No. 1,	Washington,	198,700	3,000	300	....	202,000	....	......	238	265	....	1	18,450	1,640	....	......
McDonald Coal Co. Willow Grove,	Allegheny,	75,655	....	170	....	75,825	....	......	239	101	....	....	....	....	....	......
Atlas Coal Co. Atlas,	Washington,	60,442	5,506	637	....	66,584	....	......	284	236	....	1	....	....	....	......
W. J. Steen Coal Co. Willa,	Allegheny,	58,600	233	....	....	58,833	....	......	244	66	....	....	....	....	....	5
Hugh McHugh Coal Co. Cherry,	Allegheny,	54,815	938	875	....	56,628	....	......	197	106	....	....	....	....	....	6
Hormel Coal Co. Federal No. 2,	Allegheny,	46,679	1,080	4	....	47,763	....	......	279	75	....	1	....	....	....	7
Island Run Coal Co. Dawson,	Beaver,	47,500	....	....	....	47,500	....	......	278	70	....	....	10,000	200	....	......
T. C. Conaway Coal Co. Catherine,	Allegheny,	11,943	....	16	....	11,959	....	......	162	51	....	....	....	....	....	6
Casey Coal Co. Shamrock,	Allegheny,	....	....	5,750	....	5,750	....	......	267	8	....	....	1,000	....	....	......
Grand totals,	....	6,114,425	126,872	29,818	....	6,271,110	....	......	......	3,147	18	59	662,293	22,305	325	454

TABLE 2—Part 2

Names of Operators	County	Number of Boilers					Locomotives				Number of steam engines of all classes	Total horse power	Number of pumps delivering water to surface	Capacity in gallons per minute	Quantity delivered to surface per minute—gallons	Number of electric dynamos	Number of air compressors
		Cylindrical	Horse power	Tubular	Horse power	Total horse power	Gasoline	Steam	Air	Electric							
Pittsburgh Coal Co.,	Allegheny, Washington,	......	......	41	6,150	6,150	....	....	....	27	27	4,980	61	8,231	6,755	17	......
Carnegie Coal Co.,	Allegheny, Washington.	......	......	9	1,475	1,475	....	....	....	6	11	1,555	11	1,996	1,996	5	2
Pittsburgh and Eastern Coal Co.,	Washington,	......	......	17	2,550	2,550	....	....	....	6	18	3,499	4	950	575	3	3
Fayette Coal Co.,	Allegheny,	......	......	5	750	750	....	....	....	4	5	535	6	936	5,616	2	2
Verner Coal and Coke Co.,	Washington,	......	......	......	......	......	....	....	....	8	......	......	5	100	60	2	......
Pittsburgh-Buffalo Co.,	Washington,	......	......	4	1,000	1,000	....	....	....	3	11	1,000	2	1,000	800	2	2
Bulger Block Coal Co.,	Washington,	......	......	3	450	450	....	....	....	3	5	550	10	1,000	750	2	......
J. H. Sanford Coal Co.,	Washington,	......	......	2	500	500	....	....	....	6	3	500	9	1,200	1,200	2	1
Pittsburgh and Erie Coal Co.,	Washington,	......	......	3	500	500	....	....	....	7	4	860	2	300	300	2	1
McDonald Coal Co.,	Allegheny,	......	......	......	......	......	....	....	....	1	......	......	2	300	300	......	......
Atlas Coal Co.,	Washington,	......	......	4	1,200	1,200	....	....	....	3	7	1,200	2	350	6,000	2	......
W. J. Steen Coal Co.,	Allegheny,	......	......	1	80	80	....	....	....	1	1	25	2	300	......	2	......
Hugh McHugh Coal Co.,	Allegheny,	......	......	1	150	150	....	....	....	1	1	150	1	60	60	1	......
Hormel Coal Co.,	Allegheny,	......	......	1	150	150	....	....	....	1	......	......	......	......	......	1	......
Island Run Coal Co.,	Beaver,	......	......	......	......	......	....	....	....	2	......	......	1	25	10	......	......
T. C. Conaway Coal Co.,	Allegheny,	......	......	......	......	......	....	....	....	1	......	......	1	650	300	......	......
Totals,	......	......	......	91	14,955	14,955	....	....	....	80	93	14,854	119	17,398	24,722	43	11

TABLE 3.—Number of Each Class of Employes Inside and Outside of Mines

Names of Operators	County	Inside												Outside								Grand total inside and outside
		Mine foremen	Assistant mine foremen	Fire bosses	Miners	Machine runners	Machine loaders	Machine scrapers	Drivers and runners	Doorboys and helpers	Company men	All other employes	Total inside	Superintendents	Foremen	Blacksmiths and carpenters	Engineers and firemen	Coke employes	Bookkeepers and clerks	All other employes	Total outside	
Pittsburgh Coal Co., ...	Allegheny, ... Washington, ..	12	23	17	837	131	1,839	131	175	22	8	337	3,532	5	6	66	49	....	16	336	478	4,010
Carnegie Coal Co., ...	Allegheny, ... Washington, ..	3	4	6	144	37	494	37	66	11	76	....	878	2	1	12	9	....	2	42	68	946
Pittsburgh and Eastern Coal Co., ...	Washington, ...	3	2	8	......	69	315	24	31	5	51	3	511	....	3	10	17	....	3	39	72	583
Fayette Coal Co., ...	Allegheny, ...	1	2	3	60	20	190	8	22	4	20	....	330	1	....	6	6	....	2	17	32	362
Verner Coal and Coke Co., ...	Washington, ...	1	1	4	48	14	205	14	7	7	37	....	338	1	....	5	....	....	2	15	23	361
Pittsburgh-Buffalo Co.,	Washington, ...	1	1	3	......	15	165	15	20	1	35	....	256	1	....	3	4	....	2	25	35	291
Bulger Block Coal Co., ...	Washington, ...	1	1	2	84	10	133	10	19	4	25	....	289	1	....	4	4	....	1	11	21	310
J. H. Sanford Coal Co., ...	Washington, ...	1	1	2	15	13	200	13	8	3	26	....	282	1	....	3	3	....	2	15	24	306
Pittsburgh and Erie Coal Co., ...	Washington, ...	1	1	3	......	12	166	12	12	2	21	....	230	1	....	5	4	....	1	24	35	265
McDonald Coal Co., ..	Allegheny, ...	1	....	....	19	6	54	......	7	1	5	....	93	1	....	1	....	....	1	5	8	101
Atlas Coal Co., ...	Washington, ...	1	1	1	20	12	111	12	......	....	39	....	197	1	....	2	5	....	2	29	39	236
W. J. Steen Coal Co.,	Allegheny, ...	1	....	1	13	1	36	1	4	....	2	1	60	....	....	1	2	....	....	3	6	66
Hugh McHugh Coal Co., ...	Allegheny, ...	1	....	....	40	3	38	3	5	1	....	5	96	1	1	1	2	....	....	5	10	106
Hormel Coal Co., ...	Allegheny, ...	1	....	....	35	1	20	1	4	....	2	2	66	1	1	1	1	....	1	4	9	75
Island Run Coal Co.,	Beaver, ...	1	....	....	......	4	40	4	......	1	4	....	54	1	....	2	2	....	1	10	16	70
T. C. Conaway Coal Co., ...	Allegheny, ...	1	....	....	22	2	12	2	4	....	5	....	48	....	....	1	....	....	....	2	3	51
Casey Coal Co., ...	Allegheny, ...	....	....	....	6	......	......	......	......	....	....	....	6	1	....	....	....	....	1	....	2	8
Totals, ...	....	31	37	50	1,343	350	4,018	287	384	62	356	348	7,266	19	12	123	108	....	37	582	881	8,147

TABLE 3.—Part 2

Names of Operators	County	Average Number of Days Worked												
		January	February	March	April	May	June	July	August	September	October	November	December	Total
Pittsburgh Coal Co.,	Allegheny, Washington,	18	15	13	17	22	21	22	22	21	20	18	12	221
Carnegie Coal Co.,	Allegheny, Washington,	20	19	21	19	21	22	23	24	21	22	19	16	247
Pittsburgh and Eastern Coal Co.,	Washington,	18	18	17	13	22	23	23	22	20	21	20	19	230
Fayette Coal Co.,	Allegheny,	22	17	14	13	20	22	23	24	21	21	20	18	235
Verner Coal and Coke Co.,	Washington,	19	17	19	18	19	22	24	20	22	22	18	16	236
Pittsburgh-Buffalo Co.,	Washington,	20	24	25	25	26	25	26	27	26	26	25	18	293
Bulger Block Coal Co.,	Washington,	23	19	19	20	25	25	25	26	22	21	21	20	265
J. H. Sanford Coal Co.,	Washington,	21	21	19	20	21	18	24	23	22	23	18	16	246
Pittsburgh and Erie Coal Co.,	Washington,	23	19	15	15	19	22	22	22	22	22	21	16	238
McDonald Coal Co.,	Allegheny,	19	12	20	18	23	22	22	22	23	20	20	18	239
Atlas Coal Co.,	Washington,	27	23	25	20	25	24	25	26	25	27	24	13	284
W. J. Steen Coal Co.,	Allegheny,	19	16	21	20	21	21	23	21	19	23	17	23	244
Hugh McHugh Coal Co.,	Allegheny,	20	16	16	17	5	21	22	18	10	22	15	15	197
Hormel Coal Co.,	Allegheny,	24	22	25	22	22	22	24	24	22	25	23	24	279
Island Run Coal Co.,	Beaver,	25	23	25	24	23	25	18	25	22	25	23	20	278
T. C. Conaway Coal Co.,	Allegheny,	......	......	......	......	......	24	23	24	22	24	24	21	162
Casey Coal Co.,	Allegheny,	24	22	25	21	18	16	19	22	25	26	24	25	267

TABLE 4.—Fatal Accidents Inside and Outside of Mines.

Date of accident		Name of Person	Nationality	Occupation	Age	Married or single	Number of widows	Number of orphans	Name of Mine	County	Nature and Cause of Accident in Brief
Jan.	28	Frederick Charlier, ..	Belgian, ...	Loader, ...	33	M.	1	4	Champion, ...	Allegheny, ...	Instantly killed by being caught between face of entry and mine car while driving a chute between the main motor road and the parallel entry for a new empty side track.
Feb.	20	Peter Conionch, ...	Austrian, ..	Loader, ...	43	M.	1	....	Primrose, ...	Washington,....	Fatally injured by being caught between mine car and entry pillar.
May	2	Elmer Gillson, ...	Belgian, ...	Blacksmith,	22	S.	....	....	Verner, ...	Washington,....	Fatally injured by being caught between mine cars and entry pillar
	27	John McCoola, ...	Hungarian, .	Loader, ...	16	S.	....	....	Francis, ...	Washington,....	Instantly killed by fall of slate at face of room off V butt entry while loading a car of coal. His father had examined the slate and thought it was safe.
	29	Bermard Polinskey, ..	Lithuanian,	Miner, ...	22	S.	....	....	Pittsburgh and Eastern No. 3.	Washington,....	Instantly killed while drawing posts at face of room on butt entry.
June	23	Louis Bezich, ...	Austrian, ..	Loader, ...	67	M.	1	....	Verner, ...	Washington,....	Fatally injured by fall of slate at face of room.
July	7	Thomas Johnston, ...	American, ..	Trapper, ...	16	S.	....	....	Champion, ...	Allegheny, ...	Instantly killed by falling under motor.
	24	Joseph Schubert, ...	Austrian, ..	Loader, ...	22	S.	....	....	Armide, ...	Washington,....	Instantly killed while riding on top of the electric motor. The trolley wire caught him on the temple.
	25	John Gill, ...	Lithuanian,	Scraper, ...	26	S.	....	....	Essen No. 3, ...	Allegheny,......	Instantly killed by electricity. Cable broke and fell on him and on the rail.
Aug.	7	Thomas Cummings, ..	American, ..	Triprider, ..	27	S.	....	....	Moon Run No. 1,	Allegheny,......	Fatally injured by being run over by loaded car of slate. Outside.
	14	George Stogatis, ...	Lithuanian,	Scraper, ...	41	M.	1	5	Brier Hill, ...	Washington,....	Instantly killed by fall of roof at face of room.
	19	Joseph Shaming, ...	Hungarian, .	Loader, ...	58	M.	1	....	Pittsburgh and Eastern No. 3.	Washington,....	Neck broken by fall of slate at face of room while making preparations to set post.
	19	Peter Rizzonelli, ...	Tyrolean, ..	Laborer, ...	37	M.	1	2	Partridge, ...	Allegheny,......	Instantly killed by fall of roof within 50 feet of face of entry. The assistant mine foreman was showing him how to set timber when the roof fell.

TABLE 4—Continued

Date of accident		Name of Person	Nationality	Occupation	Age	Married or single	Number of widows	Number of orphans	Name of Mine	County	Nature and Cause of Accident in Brief
Aug.	23	Alexander Stapanick,.	Austrian, ..	Loader, ...	33	S.	....	....	Verner, ...	Washington,....	Instantly killed by being caught between cars and entry face when seven loaded cars broke loose from the motor trip and ran back to the face of the entry.
	26	John Matso, ...	Slavonian,..	Miner, ...	36	M.	1	8	Armide, ...	Washington,...	Instantly killed by fall of roof at face of rib on butt entry.
Oct.	20	Patrick Duffy, ...	Irish, ...	Laborer, ...	45	M.	1	6	Chalfant, ...	Allegheny,......	Fatally injured by mine cars when they broke loose. Outside.
	22	John Canarolli, ...	Austrian, ..	Miner, ...	32	M.	1	3	Margerum, ...	Allegheny,......	Electrocuted by coming in contact with trolley wire.
Nov.	8	Joseph Varesky, ...	Polish,......	Engineer, ...	19	S.	....	....	Jumbo, ...	Washington,....	Fatally injured by being run over by loaded dilly trip while running in front of it.

TABLE 5.—Non-Fatal Accidents Inside and Outside of Mines

Date of accident		Name of Person	Nationality	Occupation	Age	Married or single	Name of Mine	County	Nature and Cause of Accident in Brief
Jan.	1	Albert Morgan,	American,	Laborer,	34	M.	Francis,	Washington,	Skull fractured. While dumping a car of slate the bolt in the boom-pole broke and the pole fell and struck him on the head. Superintendent states accident was unavoidable. Outside.
	4	Harry Dura,	Slavonian,	Loader,	29	M.	Essen No. 3,	Allegheny,	Foot bruised by fall of slate at face of entry while knocking down coal.
	11	John Smith,	Lithuanian,	Loader,	50	M.	Essen No. 3,	Allegheny,	Compound fracture of arm. Caught between mine car and entry pillar on main entry.
	13	John Ondircbeck,	Slavonian,	Loader,	51	M.	Dickson,	Allegheny,	Ankle broken and ankle fractured by fall of slate at face of entry.
	20	Toney Petterson,	Italian,	Loader,	17	S.	Pittsburgh and Eastern No. 3.	Washington,	Ankle dislocated by fall of roof at face of room.
	24	Albert Swiner,	Polish,	Loader,	19	S.	Pittsburgh and Eastern No. 2.	Washington,	Arm badly bruised by being caught between side of hoisting shaft and one of the arms of the cage. He put his arm out over the arm of the cage.
Feb.	3	Adam Withoski,	Polish,	Loader,	49	M.	Armide,	Washington,	Leg broken by fall of slate at face of pillar while loading car of coal.
		George Sowns,	American,	Motorman,	32	S.	Partridge,	Allegheny,	Leg crushed. He was trying to get the electric motor back on the track and put a piece of iron rail under the front of the wheel of the motor and started the motor. When the motor started to climb up on the rail, the front end of the rail raised up and caught his leg between motor frame and rail.
	4	Svan Mironoff,	Russian,	Loader,	47	M.	Francis,	Washington,	Foot broken by fall of coal at face of room. He was taking down coal with a crow-bar when a piece of coal rolled over on his foot.
	19	Emil Charlier,	Belgian,	Driver,	25	M.	Jumbo,	Washington,	Shoulder dislocated by being caught between mine car and roof on entry.

TABLE 5— Continued

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Name of Mine	County	Nature and Cause of Accident in Brief
March 3	Alexander Tallett, ...	Italian, ...	Brakeman, ...	25	S.	Francis, ...	Washington, ...	Head, back and ribs bruised by being caught between mine car and entry pillar. He jumped off the car, struck his head against cross-bar, and fell against the side of the track.
	John Lobas, ...	Italian, ...	Loader, ...	40	S.	Francis, ...	Washington, ...	Ribs broken by being caught between mine car and face of room. He took the car within 4 feet of the face of the room and commenced to load it when the wooden rail broke and allowed the car to run forward.
16	Casimer Kotor, ...	Polish, ...	Motorman, ...	24	S.	Armide, ...	Washington, ...	Toes smashed by being run over by motor. He was taking a box of machine bits off the motor when the empty trip of cars bumped into the motor and pushed it forward.
17	Toney Alldock, ...	Polish, ...	Scraper, ...	26	M.	Pittsburgh and Eastern No. 3.	Washington, ...	Hip cut by being caught by machine bits. He tightened the front jack against the face of the coal. He then stepped to the wrong side and the machine bits caught his trousers and pulled him down.
20	Silvester Pedrona, ...	Italian, ...	Loader, ...	28	M.	Pittsburgh and Eastern No. 3.	Washington, ...	Left eye and middle finger cut off by fall of slate at face of room while setting a post.
22	Frank Addonea, ...	Polish, ...	Scraper, ...	30	S.	Pittsburgh and Eastern No. 2.	Washington, ...	Back wrenched by being struck by a slab of coal that fell from the face of room.
26	Louis Rewet, ...	Hungarian, .	Miner, ...	31	M.	Federal No. 2, ...	Allegheny, ...	Leg broken by fall of slate from side of pillar.
27	Emil Vedel, ...	Belgian, ...	Bratticeman, ...	42	M.	Verner, ...	Washington, ...	Thigh broken by being caught between mine car and pillar. He was standing in the neck of the room when the motor went past with an empty trip and one of the cars turned into the room and caught him.
April 8	Hugh Orson, ...	American, ..	Laborer, ...	63	M.	Francis, ...	Washington, ...	Foot bruised by fall of slate while taking down loose roof.

April	17	John Jula,	Slavonian,	Loader,	27	M.	Partridge,	Allegheny,	Leg broken by fall of slate at face of No. 17 butt entry, off the main entry, while shoveling coal from under the draw slate.
	21	Albert Heasley,	American,	Boss driver,	32	M.	Grant,	Allegheny,	Collar bone and seven ribs broken by being run over by motor. He was riding on the front end of motor. He turned around to lie down on top of motor, the motor gave a sudden jerk in starting the trip and he fell in front of it.
May	13	John Makas,	Russian,	Machine runner,	39	M.	Francis,	Washington,	Both legs fractured by fall of slate at face of room. He knocked out the post next to the face in order to get the coal-cutting machine in place and did not reset it and when the machine started to cut it jarred the roof and the loose slate fell.
	17	Charles Seik,	American,	Laborer,	67	M.	Champion,	Allegheny,	Leg and thigh fractured by mine car on slate dump. A truck was used to run the car to the end of the slate dump and while Seik was loosening the latch that held the turntable in place the car ran back off the truck and caught him. Outside.
	20	James Dross,	Russian,	Loader,	25	S.	Francis,	Washington,	Back fractured by fall of slate at face of butt entry while trimming the coal along side of entry.
	28	Robert Lyons,	English,	Miner,	30	M.	Bulger,	Washington,	Compound fracture of leg by fall of coal at face of entry stumps. He had taken down the draw slate when the roof coal fell on him in such a way as to drive the point of his pick into his leg.
June	9	George Coon,	American,	Loader,	45	M.	Atlas,	Washington,	Rib fractured and body bruised. He prepared a shot on No. 1 North West butt entry, lighted the squib and retreated to a place of safety. Thinking the shot had gone off he returned too soon.
	11	Steve Karasick,	Austrian,	Scraper,	34	S.	Primrose,	Washington,	Leg and foot contused while moving a coal-cutting machine. His foot was in between the truck wheels and was caught in some manner and he was dragged and the wheel ran upon his leg.
	24	Frederick Saplit,	American,	Loader,	17	S.	Jumbo,	Washington,	Hips severely bruised by fall of slate at face of room while shoveling coal.
July	12	John Guerra,	Italian,	Loader,	35	S.	Shaw,	Washington,	Ankle sprained by fall of slate at face of room.
	13	John Pannab,	English,	Blacksmith,	58	M.	Shaw,	Washington,	Breast bone fractured and hand cut by being kicked by a horse. He was shoeing the horse and struck him with a hammer because he would not stand over.
	14	Toney Romain,	American,	Driver,	20	S.	Primrose,	Washington,	Hand lacerated by being caught between two cars that he was coupling on the side track. Another driver came with his trip and bumped into the loaded cars.

TABLE 5—Continued

Date of accident		Name of Person	Nationality	Occupation	Age	Married or single	Name of Mine	County	Nature and Cause of Accident in Brief
July	23	Antoney Martian,	German,	Miner,	68	M.	Essen No. 3,	Allegheny,	Leg broken by fall of coal at face of room.
	25	Mike Krenchick,	Polish,	Miner,	35	M.	Dickson,	Allegheny,	Ankle fractured by fall of slate at face of room while undermining the coal.
	28	Toney Waskey,	Slavonian,	Loader,	36	M.	Partridge,	Allegheny,	Leg broken in two places by fall of coal at face of room.
Aug.	4	William Coloose,	Italian,	Scraper,	32	M.	Primrose,	Washington,	Head cut and three ribs fractured by fall of roof coal at face of room.
	11	John Chusick,	Polish,	Loader,	40	M.	Pittsburgh and Eastern No. 3.	Washington,	Burned at face of No. 10 left butt entry. The cutter had cut the entry in the morning and cut a clay vein which gave off gas. Chusick started to drill a hole in the coal but the fire-boss, on his second round, sent him home. In the evening Chusick returned, went past the danger board for his tools, and was burned.
	27	Joseph Rhuber,	Austrian,	Miner,	28	S.	Moon Run No. 3,	Allegheny,	Head and back bruised and leg broken by fall of slate at face of room.
		Menas Constandme,	Greek,	Loader,	22	S.	Francis,	Washington,	Back injured by fall of slate off No. 21 room on S entry.
		Harmel Dance,	Finnish,	Driver,	30	M.	Primrose,	Washington,	Leg broken by being kicked by a mule on the side track.
	28	John Wilkins,	Italian,	Scraper,	40	M.	Francis,	Washington,	Ankle fractured by a coal-cutting machine at face of room. The machine slipped off the skids and caught his leg.
	29	Louis Obliski,	Polish,	Laborer,	30	M.	Moon Run No. 1,	Allegheny,	Collar bone fractured by being thrown from a mule that he was riding. Outside.
Sept.	6	George Kosick,	Polish,	Miner,	20	S.	Verner,	Washington,	Leg broken by fall of slate at face of room while knocking out a post.
	20	Louis Franestine,	Slavonian,	Loader,	30	M.	Shaw,	Washington,	Leg fractured by fall of slate at face of entry.
	26	George Kushmer,	Slavonian,	Snapper,	22	S.	Armide,	Washington,	Hand lacerated by being run over by mine car. While crossing over between loaded cars while they were in motion on the side track his hand came in contact with the trolley wire, 500 volts, and he was thrown down, and his hand fell on the rail in front of the cars.

Oct.	1	Mike Jewalike,	Greek,	Loader,	28	S.	Francis,	Washington,	Leg fractured by fall of coal at face of room.
	11	Mike Knossel,	Polish,	Machine runner,	35	M.	Erie No. 1,	Washington,	Back broken by fall of roof at face of room. The loader had set up several posts but the machine men knocked them out and did not reset them.
	13	Louis Zebeski,	Hungarian,	Scraper,	28	M.	Shaw,	Washington,	Leg fractured by fall of roof coal at face of room.
	16	Carmille Leben,	Belgian,	Miner,	53	M.	Champion,	Allegheny,	Side injured by being kicked by a mule in his room on butt entry. The driver pulled the loaded car off the track and while he was fixing the track the mule kicked Leben.
	18	Joseph Kushneck,	Austrian,	Miner,	26	S.	Moon Run No. 2,	Allegheny,	Internally injured by fall of slate at face of rib while undermining. He had no sprag set under the coal.
	21	Andy Verosce,	Lithuanian,	Driver,	23	M.	Pittsburgh and Eastern No. 3.	Washington,	Collar bone broken by fall of slate on butt entry while coming out with a loaded trip of cars.
	25	Paul Hans,	Belgian,	Driver,	20	S.	Jumbo,	Washington,	Foot fractured by being caught between loaded cars. When coming out with a loaded trip one of the cars jumped the track and bumped up against the other.
	30	Joseph Wagner,	Slavonian,	Loader,	40	S.	Armide,	Washington,	Cut above the eye and bone in face fractured by fall of slate at face of entry. He had set no posts.
Nov.	3	James Stokes,	English,	Driver,	24	M.	Jumbo,	Washington,	Foot crushed. When he started the trip he attempted to step on the bumper of one of the cars and slipped and the car ran upon his foot.
		Joseph Rien,	French,	Miner,	64	M.	Jumbo,	Washington,	Three ribs broken by fall of coal at face of pillar while undermining the coal.
	4	Frank Brume,	Italian,	Loader,	21	S.	Grant,	Allegheny,	Back fractured and head cut by fall of slate at face of room on butt entry while taking down coal. He had been told to take down the slate.
	19	Wladislaw Silanski,	Slavonian,	Miner,	37	M.	Champion,	Allegheny,	Head cut, hips and legs bruised by fall of slate at face of pillar while undermining the coal.
Dec.	9	John Stancavisk,	Polish,	Driver,	18	S.	Pittsburgh and Eastern No. 2.	Washington,	Collar bone broken by being caught between roof and car while coming out with a loaded trip of cars. He was riding between the first and second cars on the hitching and when he came to low place on the entry he was caught and pulled over the top of the car.
	15	George Gardner,	English,	Loader,	24	S.	Jumbo,	Washington,	Hips fractured by fall of roof at face of butt entry.
	24	Robert Burgess,	American,	Scraper,	22	M.	Francis,	Washington,	Leg broken by fall of coal at face of room while shoveling the fine coal away from the coal-cutting machine.

CONDITION OF MINES

PITTSBURGH COAL COMPANY

Brier Hill—Ventilation in some parts of the mine is good and in other parts it is only fair. Some parts of the roads are wet and muddy and in other parts the drainage is fair.

Champion—Ventilation in some parts of the mine is good and in other parts it is only fair. Some parts of the mine are wet and muddy, and in other parts the drainage is fair.

Dickson—Ventilation and drainage good, except as to some other minor details.

Essen No. 3.—Ventilation and drainage good.

Grant—Ventilation in some parts of the mine is good and in other parts it is only fair. Drainage in some parts is good and in other parts the roads are wet and muddy.

Jumbo—Ventilation in some parts of the mine is good and in other parts it is only fair. Drainage in some parts is good and in other parts the roads are wet and muddy.

Margerum—Ventilation good. Drainage in some parts is good and in other parts the roads are wet and muddy.

Moon Run Nos. 1, 2 and 3.—Ventilation good. Drainage good, except as to some minor details.

Partridge—Ventilation good. Drainage in some parts is good, and in other parts the roads are wet and muddy.

Shaw—Ventilation and drainage fair, except that some parts the roads are wet and muddy.

CARNEGIE COAL COMPANY

Carnegie—Ventilation and drainage fair.

Oakdale—Ventilation good. Drainage good, except as to some minor details.

Primrose—Ventilation good. Drainage good, except as to some minor details.

PITTSBURGH AND EASTERN COAL COMPANY

Pittsburgh and Eastern No. 1.—Ventilation and drainage fair.

Pittsburgh and Eastern No. 2.—Ventilation in some parts of the mine is good and in other parts it is only fair. Drainage in some parts is good and in other parts the roads are wet and muddy.

Pittsburgh and Eastern No. 3.—Ventilation in some parts of the mine is good and in other parts it is only fair. Drainage in some parts is good and in other parts the roads are wet and muddy.

FAYETTE COAL COMPANY

Chalfant—Ventilation good. Drainage good, except as to some minor details.

VERNER COAL AND COKE COMPANY

Verner—Ventilation good. Drainage in some parts is good and in other parts the roads are wet and muddy.

PITTSBURGH-BUFFALO COMPANY

Francis—Ventilation fair. Drainage in some parts is good and in other parts the roads are wet and muddy.

BULGER BLOCK COAL COMPANY

Bulger—Ventilation good. Drainage in some parts of the mine is poor and in other parts it is fair.

J. H. SANFORD COAL COMPANY

Armide—Ventilation good. Drainage in some parts of the roads is fair and in other parts it is poor.

PITTSBURGH AND ERIE COAL COMPANY

Erie No. 1.—Ventilation and drainage fair.

McDONALD COAL COMPANY

Willow Grove—Ventilation and drainage good, except as to some minor details.

ATLAS COAL COMPANY

Atlas—Ventilation and drainage excellent.

W. J. STEEN COAL COMPANY

Willa—Ventilation and drainage fair, except as to some minor details.

HUGH McHUGH COAL COMPANY

Cherry—Ventilation and drainage fair.

HORMEL COAL COMPANY

Federal No. 2.—Ventilation and drainage fair.

ISLAND RUN COAL COMPANY

Dawson—Ventilation and drainage good.

T. C. CONAWAY COAL COMPANY

Catherine—Ventilation and drainage fair.

CASEY COAL COMPANY

Shamrock—Ventilation and drainage fair.

AMERICAN ZINC AND CHEMICAL COMPANY

A new company opening shaft mines in Burget Run, one and one-half miles south of Burgettstown, Washington County, on P. C. C. and St. L. Railroad. Mines will be equipped with the latest improved mining machinery.

W. H. SHINN COAL COMPANY

A new company opening a mine at Raccoon, Washington County, on the P. C. C. and St. L. Railroad.

STANDARD PITTSBURGH COAL COMPANY

A new company opening mines at Hanlin Station, Washington County, on the P. C. C. and St. L. Railroad.

IMPROVEMENTS

PITTSBURGH COAL COMPANY

Brier Hill—Built 45 brick stoppings, 2 brick overcasts, 6 brick pump-houses, 1 brick oil-house, and 1 brick mine office, inside. Extended motor haulage a distance of 850 feet. Installed 11 19-A Jeffrey electric coal-cutting machines, 2 Deming electric pumps 8 by 10 and 5 by 6, and one 13-ton Jeffrey electric motor.

Champion—Built 85 brick stoppings and 2 brick overcasts. Extended motor haulage a distance of 4,000 feet. Supplied 125 mine cars. Installed 2 Deming electric pumps, one 13-ton W. E. 102 locomotive.

Dickson—Built 11 brick stoppings and 2 brick overcasts. Extended the motor haulage a distance of 1,300 feet. Installed two 13-ton Jeffrey electric locomotives, six 17-A Jeffrey mining machines. Supplied 75 mine cars. Put 2,000 feet of ⅞ wire rope on incline plane outside.

Essen No. 3.—Installed two 13-ton, Type D. M., class 105, 500 volts, 6 M. P. H. D. B. pull 6,500, Jeffrey haulage motors, Q type E 6′ Goodman mining machine. Rebuilt 10 plain Goodman mining machines and changed same to self movers. Painted power house, putting new roof on half of the building. Reguyed all of the stacks. Put in one new set of flues. Remodeled on corner for pit boss office. Erected a new 1,200 barrel water tank, 16 by 24. Installed a new 12 by 7 by 12 Yough feed pump in boiler room. Also installed a Deming triplex pump at Lake Superior pump station and enlarged building to accommodate it, and added 100 feet of 5-inch suction line to same. Put new roof on barn and made general repairs to floor and stalls, and painted entire building. Repainted sand house, blacksmith shop, and O. I. C. fan house, placing new roof on same.

Jumbo—Built 100 brick stoppings, 5 brick overcasts, one brick pump-house, and one brick mine boss office inside. Also built one brick fan house inside, and installed a new fan on the return airway. Extended motor haulage a distance of 2,200 feet.

Margerum—Built 85 brick stoppings, 8 brick overcasts and one brick pump house. Extended the motor haulage a distance of 1,800 feet. Installed 2,500 feet 4-0 electric feed wire; 1,700 feet of 3-inch suction pipe line; and made two drains to the surface. Installed one 5 by 6 Deming triplex electric pump. Supplied 75 new mine cars.

Moon Run No. 1.—Built 12 brick stoppings, and extended the motor haulage a distance of 400 feet.

Moon Run No. 2.—Built 85 brick stoppings.

Moon Run No. 3.—Extended the motor haulage a distance of 800 feet. Changed one of the fans from a force to an exhaust. Set the door frames in brick.

Partridge—Installed one 3 by 4 centrifugal pump; one 20 horse power electric motor; one 15-ton Jeffrey electric motor; one 8 foot Stine fan, and one 20 horse power electric motor. Supplied 100 new mine cars. Built 90 brick stoppings and one overcast. Extended the motor haulage a distance of 9,100 feet. Made a new opening on the McAdams tract for slate dump. Enlarged the return airway in the main tunnel where the Stine fan was installed a distance of 300 feet, increasing the cross-section an average of 15 feet.

Shaw—This mine was idle about two years. All of the old steam plant has been dismanteled. It has been equipped with a sub-station 32 by 40 built of brick, and two 150 K. W. generator sets have been installed with transformers and 11 panel switchboards; the power being supplied by the West Penn Electric Company. Installed eight 19-A Jeffrey mining machines, two 28-A Jeffrey shortwall mining machines; two 13-ton Jeffrey locomotives; four 5 by 6 Deming electric truck pumps; three 5½ by 8 Deming upright pumps; two 8-foot Stine fans, one on each side of the mine, at the face of the workings. One fan is driven by a 20 horse power W. E. motor and the other is driven by a 40 horse power W. E. motor; and the voltage was increased from 250 to 550 volts. Built 25 brick stoppings, 2 overcasts, and 4 brick pump-houses. Installed 8,000 feet of 4-0 trolley wire and 7,000 feet of 4-0 feed wire. Laid 5,200 feet of road with 40 pound rail. All dwelling houses were painted, and reroofed with slate. Installed a 5 horse power electric motor to haul the slate from the tipple to the slate dump.

CARNEGIE COAL COMPANY

Carnegie—Installed a new 3-4 patented lock wire rope on the cableway between the mine and Superior Mill. The coal is conveyed by a cableway a distance of 2,000 feet.

Oakdale—Built 35 brick stoppings and one overcast. Laid 1,000 feet of motor road with 45 pound rails. Made 1,000 foot ditch in the limestone to the main sump.

Primrose—Built 39 brick stoppings and one overcast. All inside buildings and pump houses have been built of incombustible material. Extended the motor haulage a distance of 1,400 feet and laid it with 45 pound rail, and bonded them with inner type of bond. Trolley wire has been gone over and substantially secured. Placed enamel signs, with the word "DANGER" marked on them, at the entrance to all worked-out and abandoned places; also enamel signs reading "This Way Out" and "This Way to the Air-Shaft" have been placed at the most conspicuous places, indicating the most convenient way out to either of the two openings from the mine; also enamel signs reading "Danger Wire 500 Volts" have been placed at all electric switches and at all crossings where persons have to pass under the wire, to warn them of the danger. A substantial railing has been placed around all machinery and on all trestles for the safety of the persons working around them.

PITTSBURGH AND EASTERN COAL COMPANY

Pittsburgh and Eastern No. 1.—Made 127 additional man-holes along the haulage roads.

Pittsburgh and Eastern No. 2.—Built 30 brick stoppings, and made 65 additional man-holes along the haulage roads. Enlarged the airway leading away from the bottom of the air shaft, and made improvements around the bottom of hoisting shaft. Placed a new electric arc-light on the motor.

Pittsburgh and Eastern No. 3.—Made 65 additional man-holes on the motor haulage road; and placed a new electric arc-light on the electric motor.

VERNER COAL AND COKE COMPANY

Verner—Built 25 brick stoppings and 2 overcasts.

BULGER BLOCK COAL COMPANY

Bulger—Built 21 brick stoppings and one brick overcast. Installed one 10 horse power electric deep well pump, and one 100 horse power steam engine outside to pull the railroad cars to and from the tipple.

J. H. SANFORD COAL COMPANY

Armide—Built 50 brick stoppings and 2 overcasts. Installed 2 electric locomotives; 150 K. W. generator, one Ball engine; and stokers on boilers.

PITTSBURGH AND ERIE COAL COMPANY

Erie No. 1.—Built 30 brick stoppings and 4 overcasts. Installed 10 Jeffrey mining machines; 5 Jeffrey electric locomotives, and generator and engine. Built one tile sand house 12 by 16 feet.

McDONALD COAL COMPANY

Willow Grove—Installed electric haulage; also one 7-ton electric motor 65 horse power; one 6-foot Stine fan; and one 20 horse power electric motor.

ATLAS COAL COMPANY

Atlas—The new plant of the Atlas Coal Company, which was recently put in operation in the Pittsburgh District, is a modern mine. The tipple building is a steel structure with asbestos-protected metal sheathing. The other buildings are of brick and concrete construction. A shaft 12 by 24 feet was sunk to a depth of 270 feet to the Pittsburgh seam, which at this point is 5 feet thick. A double hoist has been installed. An air shaft 220 feet distant is equipped with a single hoist, which is used for men and equipment, but can be used for hoisting coal when required. The main entries extend 1,000 feet on either side of the shaft and provide trackage for 200 loaded cars and 200 empties at all times. As the cars operate by gravity, but two men are required at the bottom of the shaft and two at the top to handle the cars. The tipple is provided with two dumps and two sets of gravity screens for lump, egg, nut and slack coal. The refuse is carried by a conveyor to a larry car, which transports the fuel to a hopper in the power plant. As the cars at the bottom of the shaft and on the tipple operate by gravity, the plant is practically automatic and can be operated at its ultimate capacity of 3,000 tons a day with three men at each of the two stations. The power plant is a concrete and brick-face structure 45 by 120 feet, in which four 300-horse power Erie City water-tube boilers are installed, operated by underfeed stokers. Two Epping and Carpenter 10 by 6 by 10 inch boiler-feed pumps and a Hoppes feed-water heater with 2,000 horse power boiler capacity, complete the boiler house equipment. Two Erie City four-valve engines with 17 by 24 inch cylinders, direct connected to 220 K. W. 275 volt compound wound General Electric generators, supply power for the operation of the mine electrical equipment. The mine fan, Jeffrey type, is placed in a steel, brick and concrete building adjoining the power plant. It is

16 by 5 feet, and is driven by two 17 by 21 inch four-valve Erie City engines, which operate at 160 revolutions per minute, and delivers 300,000 cubic feet of air per minute against a 6-inch water gauge. The main hoist is equipped with two 26 by 36 inch Vulcan engines, direct-connected to conical drums 7 to 9 feet, which are located in a separate building. The hoist is designed to deliver four loaded cars per minute. The auxiliary hoist is located in a 20 by 24 foot building connected to the power plant. It is operated by a twin 15 by 21 cylinder Vulcan hoisting outfit. The steam piping at the power plant is of steel pipe with Vanstone joints, tested to 250 pounds pressure. The plant is at present operated at 150 pounds working pressure. The shop is a brick structure 45 by 75 feet, and is equipped with a forging hammer, pipe machine, drill presses and other machine tools. A flow of excellent water was found at a depth of 80 feet in the shaft, and a water-ring was installed from which the water supply for the works and the town is secured. An electrically driven plunger pump, with a capacity of 150 gallons per minute, forces the water into a 300,000 gallon concrete reservoir at an altitude of 200 feet above the town. The electrical equipment of the mine includes two General Electric haulage locomotives equipped with cable and crab reels, one Goodman locomotive, one Jeffrey locomotive, and six Goodman coal-cutting machines. Rails of 60 pounds per yard are laid in the main haulage, 45 pound rails in the secondary haulage, and 20 pounds rails in the rooms. The cars used are a special design of 3-ton capacity, built by the Phillips Mine and Mill Supply Company. The town consists of a two-story brick store building 45 by 100 feet and 100 houses, each of which is on a separate lot 60 by 150 feet.

PROSECUTIONS FOR VIOLATION OF THE MINING LAWS

February 1, information was made against a miner at Francis mine, Pittsburgh-Buffalo Company, charging him with crossing danger board. February 3, defendant entered plea of "guilty" and was sentenced to pay the costs and a fine of $10.00, or undergo an imprisonment of 30 days in the county jail.

In July information was made against John W. Cairns, mine foreman, Champion mine, Pittsburgh Coal Company, for employing minor under 16 years of age. The information was made under the Act of June 9, 1911. The defendant's attorney demurred and motion was made for arrest of judgment on the ground that the information should have been made under the Act of June 15, 1911, amending Act of May 1, 1909, which motion is not yet disposed of.

MINE FOREMEN'S, ASSISTANT MINE FOREMEN'S AND FIRE BOSSES' EXAMINATIONS

The annual examination of applicants for certificates of qualification as mine foremen, assistant mine foremen and fire bosses was held in the Carnegie Free Library, Carnegie, May 6, 7 and 8. The Board of Examiners were composed of Charles P. McGregor, Inspector; Harry Cattley, Superintendent; and James Mains, Miner.

There were 40 applicants for certificates of qualification as mine foremen and assistant mine foremen, and 63 applicants for certificates of qualification as fire bosses. The following persons passed a satisfactory examination and were granted certificates:

MINE FOREMEN

First Grade

Joseph H. Dunn, Imperial; James McCaffery, Thomas W. Johnston, McDonald; William A. Williamson, George M. Furniss, Harry Brown, Burgettstown.

Second Grade

Adam Cummings, Cherry Valley; Robert Malarkey, John T. Davidson, George Hulme, Thomas Jones, McDonald; Ernest Barnes, Federal; George W. Taylor, Raccoon; Fernand Poudivigne, Sturgeon; Martin Ruzsa, Jr., Oakdale.

ASSISTANT MINE FOREMEN

Adam Cummings, Gilbert Cummings, James T. Delaney, Hultz Couch, Cherry Valley; Alfred J. Case, Thomas Smith, Robert Malarkey, James J. Laughlin, McDonald; Joseph Phillips, Imperial; Charles Snatchko, Oakdale; George W. Taylor, Raccoon; Thomas Barker, Michael J. Shields, Burgettstown; Fernand Poudivigne, Sturgeon.

FIRE BOSSES

Edward Kilpatrick, Richard McDougal, Carnegie; William R. Murhamer, Robert Tyson, William T. Peck, David H. Croghan, Cherry Valley; James Potts, Odilon Bastide, Emile Mente, Octave Mente, Sturgeon; Charles Swift Drury, Burgettstown; Dominic McGrady, Charles Biondi, Noblestown; William C. Brown, Leopold Allard, William C. Cairns, Frank Lobry, Thomas R. Taylor, Thomas Oldfield, William Jarrett, Thomas H. Farrar, William McCoy, James Stevenson, McDonald; Carl McFarland, Charles Snatchko, Oakdale; Michael Adams, Moon Run; Harry Bertrand, Bulger; William Gillen, Heidelberg; Casper W. Daniel, Charles Sherman, Oliver Dhayer, Midway.

EIGHTH DISTRICT

CLEARFIELD, CENTRE, TIOGA, CLINTON, LYCOMING AND BRADFORD COUNTIES

Philipsburg, Pa., February 14, 1914.

Hon. James E. Roderick, Chief of Department of Mines:

Sir: In compliance with the Bituminous Mine law of June 9, 1911, I herewith submit my annual report for the year ending December 31, 1913.

The report shows a slight increase in tonnage over the preceding year. The number of accidents was about the same.

While there has not been a vast improvement in the mines, a good deal was done to increase the output and also for the welfare and safety of the employes.

Respectfully submitted,

JOSEPH KNAPPER, Inspector.

SUMMARY OF STATISTICS

Number of mines,	89
Number of mines in operation,	89
Number of tons of coal shipped to market,	4,513,719
Number of tons used at mines for steam and heat,	88,676
Number of tons sold to local trade and used by employes,	24,872
Number of tons used in the manufacture of coke,	....
Number of tons of coal produced,	4,627,267
Number of tons of coke produced,	....
Number of coke ovens,	....
Number of coke ovens in operation,	....
Number of tons of coal produced by pick mining,	3,405,968
Number of tons produced by compressed air machines,	210,049
Number of tons produced by electrical machines,	1,011,250
Number of persons employed inside of mines,	5,698
Number of persons employed outside, including coke workers,	654
Number of persons employed at manufacture of coke,	....
Number of fatal accidents inside of mines,	4
Number of fatal accidents outside,	....
Number of non-fatal accidents inside of mines,	28
Number of non-fatal accidents outside,	2
Number of tons of coal produced per fatal accident inside,	1,156,817
Number of tons produced per fatal accident outside,	1,156,817
Number of tons produced per fatal accident inside and outside,	1,156,828
Number of persons employed per fatal accident inside,	1,425
Number of persons employed per fatal accident outside,	....
Number of persons employed per fatal accident inside and outside,	1,588
Number of persons employed per non-fatal accident inside,	204
Number of persons employed per non-fatal accident outside,	327
Number of persons employed per non-fatal accident inside and outside,	212
Number of wives made widows,	3
Number of children made orphans,	7
Number of steam locomotives used inside of mines,	1
Number of steam locomotives used outside,	11
Number of compressed air locomotives used inside,	....
Number of compressed air locomotives used outside,	....
Number of electric motors used inside,	62
Number of electric motors used outside,	....
Number of gasoline locomotives used inside,	....
Number of fans in use,	35
Number of furnaces in use,	56
Number of gaseous mines in operation,	....
Number of non-gaseous mines in operation,	89
Number of new mines opened,	4
Number of old mines abandoned,	2

TABLE A

PRODUCTION OF COAL

Names of Operators	Tons
Morrisdale Coal Company,	451,967
Morris Run Coal Mining Company,	396,943
Peale, Peacock and Kerr, Incorporated,	358,490
Clearfield Bituminous Coal Corporation,	335,952
Lehigh Valley Coal Company,	325,959
Moshannon Coal Mining Company,	323,733
Blossburg Coal Company,	293,813
Pennsylvania Coal and Coke Corporation,	284,408
Fall Brook Coal Company,	204,254
Kelley Brothers Coal Company,	173,168
Ashman Coal Company,	104,367
Victoria Coal Mining Company,	103,039
Goshen Coal Company,	93,538
J. Edward Horn and Company,	86,356
Osceola Coal Company,	84,842
Irish Brothers Coal Company,	84,645
Atherton-Barnes Company,	67,512
Guion Coal Company,	63,078
Kato Coal Company,	58,865
Thomas J. Lee,	58,420
F. J. Dunham and Company,	54,919
E. J. Goodyear and Sons,	43,251
Atherton and Barnes,	42,795
Ghem Coal Company,	42,049
O'Donnell Brothers,	41,938
Lane Coal Company, Incorporated,	39,004
James F. Stott,	38,934
Cuba Coal Company,	31,655
Jenkin Brothers,	31,573
Scootac Mining Company,	27,358
Ralston Coal Company,	26,789
Grace Coal Mining Company,	21,288
Dunbar Coal Mining Company,	20,583
Blair Brothers Coal Company,	19,564
Potter-Bigler and Potter, Incorporated,	17,800
White-Dugan Coal Company,	17,255
Woodland Cannel Coal Company,	17,052
Coaldale Mining Company,	17,035
Nowak Coal Company,	15,497
Moravian Coal Company,	13,290
Heath Brothers,	12,353
A. B. Lansbery,	11,606
W. F. Holt,	11,505
William J. Davis,	11,047
William Frazier,	10,948
Osceola Coal Mining Company,	7,739
Edward Harris and Sons,	7,314

John Barnes and Sons,	6,819
Red Jacket Coal Mining Company,	6,720
Blossburg and Coal Run Coal Company,	3,877
Jones Hill Coal Company,	2,361
Rock Run Coal Company,	2,000
Total,	4,627,267

Production by Counties

Clearfield,	2,267,262
Centre,	1,302,654
Tioga,	990,256
Lycoming,	28,789
Clinton,	27,358
Bradford,	10,948
Total,	4,627,267

TABLE B.—Fatal and non-fatal accidents inside and outside of mines; number of tons of coal produced per accident; number of persons employed; number employed per accident

Names of Operators	Fatal Accidents			Non-Fatal Accidents			Tons of coal produced per fatal accident inside	Tons of coal produced per non-fatal accident inside	Number of employes inside	Number of employes outside	Total number of employes	Number of employes inside per fatal accident	Number of employes outside per fatal accident	Number of employes inside per non-fatal accident	Number of employes outside per non-fatal accident
	Inside	Outside	Total	Inside	Outside	Total									
Morrisdale Coal Co.,	1	......	1	2	......	2	451,967	225,984	502	46	548	502	....	251	......
Morris Run Coal Mining Co.,	......	......	......	2	......	2	....	198,472	660	68	728	....	....	330	......
Peale, Peacock and Kerr, Inc.,	......	......	......	3	......	3	....	119,500	345	43	388	....	....	115	......
Lehigh Valley Coal Co.,	1	......	1	1	......	1	325,959	325,959	330	40	370	330	....	330	......
Moshannon Coal Mining Co.,	......	......	......	2	......	2	....	161,367	296	29	325	....	....	148	......
Blossburg Coal Co.,	......	......	......	3	......	3	....	97,938	485	59	544	....	....	162	......
Pennsylvania Coal and Coke Corporation,	1	......	1	2	......	2	284,408	142,204	262	33	295	262	....	131	......
Fall Brook Coal Co.,	......	......	......	1	......	1	....	204,254	272	62	334	....	....	272	......
Kelley Brothers Coal Co.,	......	......	......	2	1	3	....	86,584	227	31	258	....	....	114	31
Ashman Coal Co.,	1	......	1	1	1	2	104,367	104,367	125	16	141	125	....	125	16
Victoria Coal Mining Co.,	......	......	......	2	......	2	....	51,520	151	21	172	....	....	76	......
J. Edward Horn and Company,	......	......	......	2	......	2	....	48,178	82	7	89	....	....	41	......
Irish Brothers Coal Co.,	......	......	......	1	......	1	....	84,645	89	11	100	....	....	89	......
Atherton-Barnes Co.,	......	......	......	1	......	1	....	67,512	60	8	68	....	....	60	......
Guion Coal Co.,	......	......	......	1	......	1	....	63,078	62	10	72	....	....	62	......
James F. Stott,	......	......	......	1	......	1	....	38,934	44	4	48	....	....	44	......
Moravian Coal Co.,	......	......	......	1	......	1	....	13,290	55	4	59	....	....	55	......
Miscellaneous Companies,	......	......	......	......	......	......	....	....	1,651	160	1,811	....	....	....	......
Totals and averages for district,	4	......	4	28	2	30	1,156,817	165,260	5,698	654	6,352	1,425	....	204	327

TABLE C.—Classification of Fatal Accidents Inside and Outside of Mines

	Months													
	January	February	March	April	May	June	July	August	September	October	November	December	Totals	Percentages
Causes of Accidents Inside														
Falls of coal, ...	....	....	....	....	....	....	....	....	....	1	1	....	2	50.00
Falls of slate, ...	....	....	....	....	....	....	....	1	....	....	....	....	1	25.00
Explosions of powder and dynamite, ...	1	....	....	....	....	....	....	....	....	....	....	....	1	25.00
Totals, ...	1	....	....	....	....	....	....	1	....	1	1	....	4	100.00
Causes of Accidents Outside (No Accidents)														

TABLE D.—Classification of Non-Fatal Accidents Inside and Outside of Mines

	Months													
	January	February	March	April	May	June	July	August	September	October	November	December	Totals	Percentages
Causes of Accidents Inside														
Falls of coal, ...	2	1	....	1	....	....	....	....	....	....	1	2	7	25.00
Falls of slate, ...	1	1	1	1	....	....	....	....	....	....	....	3	7	25.00
Falls of roof, ...	....	....	....	....	....	....	....	....	1	....	....	....	1	3.57
Mine cars, ...	....	....	....	....	2	1	....	....	2	1	....	....	6	21.43
Explosions of powder and dynamite, ...	....	....	....	....	....	....	....	....	....	....	1	....	1	3.57
Blasts, premature and otherwise, ...	....	....	....	....	....	2	....	....	....	....	....	1	3	10.72
Machinery, ...	1	....	....	....	....	....	....	....	....	....	....	1	2	7.14
Coal rolled on him, ...	....	....	....	....	....	....	....	....	1	....	....	....	1	3.57
Totals, ...	4	2	1	2	2	3	....	....	4	1	2	7	28	100.00
Causes of Accidents Outside														
Cars, ...	....	....	....	....	....	....	....	1	....	....	....	....	1	50.00
By falling, ...	....	1	....	....	....	....	....	....	....	....	....	....	1	50.00
Totals, ...	....	1	....	....	....	....	....	1	....	....	....	....	2	100.00
Grand totals inside and outside, ...	4	3	1	2	2	3	....	1	4	1	2	7	30	......

TABLE E.—Occupations of Persons Killed or Fatally Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
Inside													
Miners,	1	....	....	....	....	....	....	1	....	1	1	....	4
Totals,	1	....	....	....	....	....	....	1	....	1	1	....	4
Outside (No Accidents)													

TABLE F.—Occupations of Persons Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
Inside													
Mine foremen,	....	....	....	....	....	....	....	....	1	....	....	....	1
Miners,	3	2	1	2	2	2	....	....	2	....	2	6	22
Machine scrapers,	....	....	....	....	....	....	....	....	....	....	....	1	1
Drivers and runners,	....	....	....	....	....	....	....	....	1	1	....	....	2
Motormen,	1	....	....	....	....	....	....	....	....	....	....	....	1
Company men,	....	....	....	....	....	1	....	....	....	....	....	....	1
Totals,	4	2	1	2	2	3	....	....	4	1	2	7	28
Outside													
Drivers,	....	....	....	....	....	....	....	1	....	....	....	....	1
Dumpers,	....	1	....	....	....	....	....	....	....	....	....	....	1
Totals,	....	1	....	....	....	....	....	1	....	....	....	....	2
Grand totals inside and outside,	4	3	1	2	2	3	....	1	4	1	2	7	30

TABLE G.—Nationality of Persons Killed or Fatally Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
Polish,	1	....	....	....	....	....	....	....	....	....	....	....	1
Hungarian,	....	....	....	....	....	....	....	....	....	1	....	....	1
Italian,	....	....	....	....	....	....	....	1	....	....	....	....	1
Swedish,	....	....	....	....	....	....	....	....	....	....	1	....	1
Totals,	1	....	....	....	....	....	....	1	....	1	1	....	4

TABLE H.—Nationality of Persons Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
American,	....	1	....	1	....	....	....	1	2	1	1	1	8
English,	....	....	....	....	....	1	....	....	1	....	....	1	3
Welsh,	1	....	....	....	....	....	....	....	....	....	....	....	1
German,	1	....	....	....	1	....	....	....	....	....	....	....	2
Polish,	1	....	1	1	....	....	....	....	1	....	....	....	4
Hungarian,	....	....	....	....	....	....	....	....	....	....	1	....	1
Slavonian,	....	1	....	....	1	....	....	....	....	....	....	5	7
Austrian,	....	....	....	....	....	2	....	....	....	....	....	....	2
Hebrew,	....	1	....	....	....	....	....	....	....	....	....	....	1
Swedish,	1	....	....	....	....	....	....	....	....	....	....	....	1
Totals,	4	3	1	2	2	3	....	1	4	1	2	7	30

TABLE I.—Operators and mines, kind of openings, type and size of fans, size of furnaces, volume of air produced by fan or furnace per minute, number of splits of air currents and number of persons employed inside

Names of Operators and Mines	Kind of opening	Gaseous or non-gaseous	Method of ventilation	Diameter of fan in feet and inches	Width of blades in feet and inches	Depth of blades in feet and inches	Number of revolutions per minute	Water gauge developed—in inches	Name of fan	Power used	Area of furnace bars in square feet	Number of splits of air currents	Number of cubic feet of air per minute entering the mine at inlet	Total number of cubic feet of air per minute circulating in all the splits	Number of cubic feet of air per minute passing out at outlet	Number of persons employed inside
Morrisdale Coal Co.																
Morrisdale No. 1, ...	Shaft, ...	Non-gas., .	Fan, ...	16.0	5.0	5.4	100	2.0	Stine, ...	Steam,......	..	4	69,500	31,000	*	145
Morrisdale No. 2, ...	Shaft, ...	Non-gas., .	Fan, ...	10.0	3.5	2.0	70	.5	Stine, ...	Steam,......	..	..	12,600	3,360	*	16
Morrisdale No. 3, ...	Shaft, ...	Non-gas., .	Fan, ...	7.0	2.5	2.0	150	.75	Stine, ...	Steam,......	..	3	17,600	14,600	18,000	109
Morrisdale No. 4, ...	Drift,.....	Non-gas., .	Natural, ..	......	......	......	......	......	....	....	..	..	12,000	5,400	*	12
Morris Run Coal Mining Co.																
Jones, ...	Slope,.....	Non-gas., .	Fans, .. }	12.0	}				Stine, .. }	Electricity,	}	6	76,800	46,900	*	384
				12.0	} 4.0	4.5	80	1.0		Steam,......						
Jones No. 8, ...	Drift,.....	Non-gas., .	Fan, ...	7.5	2.5	2.0	100	.5	Stine, ...	Electricity,	..	..	14,000	9,000	14,600	65
Lake, ...	Drift,.....	Non-gas., .	Furnace, ..	......	......	......	......	......	....	....	12	2	21,000	13,600	23,000	127
Peale, Peacock and Kerr, Inc.																
Ogle No. 1, ...	Drift, ...	Non-gas., .	Fan, ...	20.0	7.5	6.0	100	2.0	Kinney, ..	Steam,......	..	3	38,200	20,200	*	134
Ogle No. 6, ...	Slope,.....	Non-gas., .	Fan, ...	10.0	2.5	2.0	40	.25	Stine, ...	Steam,......	..	..	11,400	6,000	12,200	38
Ogle No. 9, ...	Slope,.....	Non-gas., .	Fan, ...	20.0	7.0	5.0	80	1.5	Pollock, .	Steam,......	..	3	52,000	17,500	*	142
Decatur No. 3, ...	Drift, ...	Non-gas., .	Natural, ..	......	......	......	......	......	....	....	..	..	9,600	8,600	9,100	16
Decatur No. 8, ...	Drift, ...	Non-gas., .	Furnace, ..	......	......	......	......	......	....	....	30	..	6,200	5,000	....	19

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*Surface breaks show leaks in ventilation to or from surface.

TABLE I.—Continued

Names of Operators and Mines	Kind of opening	Gaseous or non-gaseous	Method of ventilation	Diameter of fan in feet and inches	Width of blades in feet and inches	Depth of blades in feet and inches	Number of revolutions per minute	Water gauge developed—in inches	Name of fan	Power used	Area of furnace bars in square feet	Number of splits of air currents	Number of cubic feet of air per minute entering the mine at inlet	Total number of cubic feet of air per minute circulating in all the splits	Number of cubic feet of air per minute passing out at outlet	Number of persons employed inside
Clearfield Bituminous Coal Corporation																
Grass Flat Nos. 9 and 10,	Drift, ...	Non-gas., .	Fan, ...	18.0	4.0	4.6	80	2.0	Brazil, ...	Steam,......	..	3	71,400	26,000	72,400	86
Knox Run, ...	Drift, ...	Non-gas., .	Fan, ...	7.0	2.5	2.0	200	.75	Stine, ...	Steam,......	..	2	26,000	14,800	*	68
Pleasant Hill, ...	Drift, ...	Non-gas., .	Fans, ..	7.0	2.5	2.0	150	.5	Stine, ..	Electricity,	..	2	28,800	23,000	30,000	114
				7.0	2.5	2.0	200	.5								
Lehigh Valley Coal Co.																
Lehigh Valley No. 9, ...	Drift, ...	Non-gas., .	Furnace,..	......	......	......	......	......	....	....	24	3	9,200	9,200	10,000	27
Lehigh Valley No. 10, ...	Drift, ...	Non-gas., .	Furnace,..	......	......	......	......	......	....	....	30	2	16,000	12,000	16,800	26
Lehigh Valley No. 12, ...	Drift, ...	Non-gas., .	2 Furnaces	......	......	......	......	......	....	....	25	..	10,800	7,900	*	37
											25	3				
Lehigh Valley No. 13, ...	Drift, ...	Non-gas., .	Furnace,..	......	......	......	......	......	....	....	25	..	3,400	2,970	3,400	30
Lehigh Valley No. 18, ...	Drift, ...	Non-gas., .	Furnace,..	......	......	......	......	......	....	....	42	..	6,400	2,400	7,000	9
Lehigh Valley No. 20, ...	Drift, ...	Non-gas., .	Furnace,..	......	......	......	......	......	....	....	30	2	23,300	10,800	24,200	40
Lehigh Valley Nos. 22, 23,	Drift, ...	Non-gas., .	2 Furnaces	......	......	......	......	......	....	....	30	..	30,000	14,000	32,400	97
									....	....	30	2				
Moshannon Coal Mining Co.																
Electric, ...	Drift, ...	Non-gas., .	Furnace,..	......	......	......	......	......	....	....	45	2	16,500	6,700	16,000	57
Moshannon No. 10, ...	Drift, ...	Non-gas., .	Fan, ...	7.0	2.5	2.0	200	.75	Stine, ...	Electricity,	..	5	46,800	29,100	50,000	118
Moshannon No. 11, ...	Drift, ...	Non-gas., .	Fan, ...	7.0	2.5	2.0	100	.5	Stine, ...	Electricity,	..	..	12,000	9,000	12,200	72
Blossburg Coal Co.																
Arnot No. 1, ...	Drift, ...	Non-gas., .	Furnace,..	......	......	......	......	......	....	....	30	..	*	3,150	15,000	40
Arnot No. 2, ...	Drift, ...	Non-gas., .	Fan, ...	5.0	4.0	......	200	1.0	Pollock, .	Electricity,	..	2	*	10,800	20,000	111

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*Surface breaks show leaks in ventilation to or from surface.

Arnot No. 5,	Drift,	Non-gas.,	Fan,	13.0	6.0	......	30	1.5	Murphey,	Steam,	..	2	*	20,700	61,600	104
Arnot No. 7,	Drift,	Non-gas.,	Furnace,	......	......	......	......	......	....	....	40	..	*	4,200	12,000	25
Maple Hill,	Drift,	Non-gas.,	Furnace,	......	......	......	......	......	....	....	48	..	*	9,900	18,000	80
Bear Run,	Drift,	Non-gas.,	Fan,	14.0	4.0	4.5	60	1.	Guibal,	Steam,	..	..	36,000	14,000	54,000	41
Pennsylvania Coal and Coke Corporation																
Winburne No. 45,	Drift,	Non-gas.,	Fan,	16.0	8.0	4.5	300	1.75	Capell,	Electricity,	..	2	26,000	14,500	*34,000	90
Winburne No. 46,	Slope,	Non-gas.,	Fan,	16.0	8.0	4.5	180	2.	Robinson,	Steam,	..	*2	34,000	14,000	*54,000	95
Winburne No. 47,	Drift,	Non-gas.,	Fan,	10.0	4.0	4.5	150	1.	Stine,	Electricity,	..	3	45,000	24,500	*32,000	26
Fall Brook Coal Co.																
Anna S,	Drift,	Non-gas.,	2 Fans,	16.0	8.0	......	180	1.5	Guibal,	Steam,	..	4	60,000	21,000	*	219
Kelley Brothers Coal Co.																
Cherry Run No. 3,	Drift,	Non-gas.,	Fan,	7.0	2.5	2.0	200	1.0	Stine,	Steam,	..	2	35,000	13,800	*18,000	94
Snow Shoe No. 5,	Drift,	Non-gas.,	Furnace,	......	......	......	......	......	....	....	30	..	8,600	8,520	9,200	42
Tunnell No. 6,	Drift,	Non-gas.,	Furnace,	......	......	......	......	......	....	....	54	..	3,200	2,400	3,840	11
Myers Run,	Drift,	Non-gas.,	Furnace,	......	......	......	......	......	....	....	42	..	13,600	4,500	*17,000	20
Karthus,	Drift,	Non-gas.,	Furnace,	......	......	......	......	......	....	....	25	..	3,600	3,200	4,400	11
Ashman Coal Co.																
Ghem,	Slope,	Non-gas.,	Fan,	7.0	2.5	......	180	0.75	Stine,	Steam,	..	3	30,000	10,300	32,000	51
Ashman No. 3,	Drift,	Non-gas.,	Furnace,	......	......	......	......	......	....	....	25	..	5,400	3,420	*9,600	36
Victoria Coal Mining Co.																
Acme No. 2,	Slope,	Non-gas.,	Fan,	10.0	2.5	3.0	100	1.0	Stine,	Steam,	..	2	30,500	10,700	*26,000	71
Acme No. 6,	Drift,	Non-gas.,	Fan,	4.0	1.0	......	200	.5	Stine,	Electricity,	..	..	17,500	10,000	*10,000	52
Goshen Coal Co.																
Goshen,	Drift,	Non-gas.,	Furnace,	......	......	......	......	......	....	....	48	2	17,600	15,600	18,500	75
J. Edward Horn and Co.																
Bloomington S No. 7,	Drift,	Non-gas.,	Furnace,	......	......	......	......	......	....	....	30	..	6,500	6,000	*14,700	50
Bloomington S No. 9,	Drift,	Non-gas.,	Furnace,	......	......	......	......	......	....	....	36	2	9,200	9,200	10,500	40
Osceola Coal Co.																
Leader Nos. 3 and 5,	Drift,	Non-gas.,	Furnace,	......	......	......	......	......	....	....	25	2	4,300	2,200	4,410	12
Leader No. 4,	Shaft,	Non-gas.,	Fan,	16.0	4.0	......	80	1.0	Brazil,	Steam,	..	2	31,500	15,200	32,400	63
Irish Brothers Coal Co.																
Colorado No. 5,	Drift,	Non-gas.,	Fan,	10.0	4.0	3.5	80	1.25	Brazil,	Steam,	..	2	24,000	13,200	*48,000	74
Atherton-Barnes Co.																
Bloomington S No. 14,	Drift,	Non-gas.,	Fan,	18.0	4.5	5.0	80	1.25	Pollock,	Electricity,	..	2	29,000	10,260	30,000	80
Guion Coal Co.																
Guion,	Drift,	Non-gas.,	Fan,	7.0	2.5	2.0	200	.75	Stine,	Steam,	..	..	19,500	6,000	20,500	51

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*Surface breaks show leaks in ventilation to or from surface.

TABLE I.—Continued

Names of Operators and Mines	Kind of opening	Gaseous or non-gaseous	Method of ventilation	Diameter of fan in feet and inches	Width of blades in feet and inches	Depth of blades in feet and inches	Number of revolutions per minute	Water gauge developed—in inches	Name of fan	Power used	Area of furnace bars in square feet	Number of splits of air currents	Number of cubic feet of air per minute entering the mine at inlet	Total number of cubic feet of air per minute circulating in all the splits	Number of cubic feet of air per minute passing out at outlet	Number of persons employed inside
Kato Coal Co. Kato, ...	Drift, ...	Non-gas., .	Furnace, ..	......	......	......	......	......	....	....	72	2	15,400	12,780	16,000	45
Thomas J. Lee Chester, ...	Drift, ...	Non-gas., .	Fan, ...	7.0	2.5	2.0	100	.75	Stine, ...	Steam, ...	..	..	22,000	4,000	*21,500	66
F. J. Dunham and Co. Royal No. 2, ...	Drift, ...	Non-gas., .	Furnace, ..	......	......	......	......	......	....	....	30	3	17,400	10,960	18,000	67
E. J. Goodyear and Sons Goodyear No. 1, ...	Drift, ...	Non-gas., .	Fan, ...	7.0	2.5	2.0	150	.75	Stine, ...	Electricity,	..	..	12,800	5,400	13,400	54
Atherton and Barnes, Troy, ...	Drift, ...	Non-gas., .	Furnace, ..	......	......	......	......	......	....	....	20	3	*	7,915	10,000	53
Ghem Coal Co. Ghem, ...	Drift, ...	Non-gas., .	Furnace, ..	......	......	......	......	......	....	....	42	..	*	6,000	14,600	20
O'Donnell Brothers O'Donnell, ...	Drift, ...	Non-gas., .	Furnace, ..	......	......	......	......	......	....	....	30	..	8,400	7,200	9,000	24
Lane Coal Company, Inc. Lane No. 5, ...	Drift, ...	Non-gas., .	Furnace, ..	......	......	......	......	......	....	....	25	..	*	4,800	22,450	60
James F. Stott Red Jacket No. 1, ...	Drift, ...	Non-gas., .	Furnace, ..	......	......	......	......	......	....	....	36	..	7,400	2,400	8,800	32

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*Surface breaks show leaks in ventilation to or from surface.

Cuba Coal Co.																
Colorado Nos. 3 and 4, ...	Drift, ...	Non-gas., .	Natural, ..	......	......	......	......	......	....	....	..	3	*6,700	7,200	7,900	16
Jefferson No. 1, ...	Drift, ...	Non-gas., .	Furnace, ..	......	......	......	......	......	....	....	20	2	7,100	5,000	7,900	12
Gearhart Nos. 1 and 2, ...	Drift, ...	Non-gas., .	Furnace, ..	......	......	......	......	......	....	....	25	2	5,400	4,800	6,000	15
Jenkin Brothers																
Jenkin Brothers, ...	Drift, ...	Non-gas., .	Furnace, ..	......	......	......	......	......	....	....	30	2	8,400	6,600	8,800	47
Scootac Mining Co.																
Scootac, ...	Drift, ...	Non-gas., .	Furnace, ..	......	......	......	......	......	....	....	25	..	8,300	4,050	9,000	27
Ralston Coal Co.																
Red Run, ...	Drift, ...	Non-gas., .	2 Fans, ..	5.0	2.0	......	200	.5	Stine, ...	Electricity,	..	3	25,000	9,200	26,400	35
Grace Coal Mining Co.																
Grace No. 1, ...	Drift, ...	Non-gas., .	Furnace, ..	......	......	......	......	......	....	....	25	..	11,200	9,600	12,000	27
Dunbar Coal Mining Co.																
Fairmont No. 2, ...	Drift, ...	Non-gas., .	Furnace, ..	......	......	......	......	......	....	....	25	2	6,300	4,600	7,500	31
Blair Brothers Coal Co.																
Orient Nos. 4 and 5, ...	Drift, ...	Non-gas., .	Furnace, ..	......	......	......	......	......	....	....	60	2	6,700	4,200	7,500	21
Potter-Bigler and Potter, Inc.																
Horse Shoe, ...	Drift, ...	Non-gas., .	Furnace, ..	......	......	......	......	......	....	....	30	..	*	1,400	8,200	15
Mt. Carmel, ...	Drift, ...	Non-gas., .	Furnace, ..	......	......	......	......	......	....	....	25	2	6,300	6,200	6,800	11
White-Dugan Coal Co.																
Columbia No. 1, ...	Slope, ...	Non-gas., .	Furnace, ..	......	......	......	......	......	....	....	30	..	10,600	4,400	11,800	15
Woodland Cannel Coal Co.																
Cannel Crest, ...	Drift, ...	Non-gas., .	2 Furnaces	......	......	......	......	......	....	....	78	2	8,700	5,850	9,000	23
Coaldale Mining Co.																
Coaldale No. 12, ...	Drift, ...	Non-gas., .	Furnace, ..	......	......	......	......	......	....	....	30	..	2,900	2,400	8,500	16
Nowak Coal Co.																
Jenkins, ...	Drift, ...	Non-gas., .	Furnace, ..	......	......	......	......	......	....	....	20	..	*	2,400	10,000	26
Moravian Coal Co.																
Moravian, ...	Drift, ...	Non-gas., .	Furnace, ..	......	......	......	......	......	....	....	42	..	7,800	5,400	6,500	14
Heath Brothers																
Retort, ...	Drift, ...	Non-gas., .	Furnace, ..	......	......	......	......	......	....	....	25	2	8,600	4,900	9,400	14
A. B. Lansbery																
Lansbery, ...	Drift, ...	Non-gas., .	2 Furnaces	......	......	......	......	......	....	....	32	2	*6,700	5,150	7,920	10

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*Surface breaks show leaks in ventilation to or from surface.

TABLE I.—Continued

Names of Operators and Mines	Kind of opening	Gaseous or non-gaseous	Method of ventilation	Diameter of fan in feet and inches	Width of blades in feet and inches	Depth of blades in feet and inches	Number of revolutions per minute	Water gauge developed—in inches	Name of fan	Power used	Area of furnace bars in square feet	Number of splits of air currents	Number of cubic feet of air per minute entering the mine at inlet	Total number of cubic feet of air per minute circulating in all the splits	Number of cubic feet of air per minute passing out at outlet	Number of persons employed inside
W. F. Holt Phoenix, ...	Drift, ...	Non-gas., .	Furnace,..	......	......	......	......	......	....	....	25	2	*7,600	7,600	8,400	80
William J. Davis Davis No. 2, ...	Drift, ...	Non-gas., .	Furnace,..	......	......	......	......	......	....	....	20	2	5,200	3,900	5,400	11
William Frazier Frazier, ...	Drift, ...	Non-gas., .	Furnace,..	......	......	......	......	......	....	....	25	..	6,600	1,200	7,000	14
Osceola Coal Mining Co. Penn No. 7, ...	Drift, ...	Non-gas., .	Furnace,..	......	......	......	......	......	....	....	25	..	5,000	3,200	5,400	9
Edward Harris and Sons Lane No. 1, ...	Drifts, ...	Non-gas., .	Natural, ..	......	......	......	......	......	....	....	..	2	5,700	5,700	6,300	12
John Barnes and Sons Lancashire No. 2, ...	Drift, ...	Non-gas., .	Furnace,..	......	......	......	......	......	....	....	20	..	6,700	2,000	7,500	14
Red Jacket Coal Mining Co. Red Jacket No. 2, ...	Drift, ...	Non-gas., .	Furnace,..	......	......	......	......	......	....	....	20	..	3,200	3,200	3,400	12

Blossburg and Coal Run Coal Co. Coal Run Nos. 4 and 5, ..	Drift, ...	Non-gas., .	Furnace,..	......	......	......	......	......	....	....	20	2	1,800	800	1,800	8
Jones Hill Coal Co. Jones Hill, ...	Drift, ...	Non-gas., .	Natural, ..	......	......	......	......	......	....	....	..	..	5,400	3,600	6,000	9
Rock Run Coal Co. Rock Run, ...	Drift, ...	Non-gas., .	Furnace,..	......	......	......	......	......	....	....	20	..	3,300	1,600	3,400	11

TABLE J.—Mines using coal cutting machines, power used, geological and local names of seams, thickest and thinnest seams where machines are used, and the approximate number of tons produced by machines

Names of Operators	Names of Mines	Kind of opening	Gaseous or non-gaseous	Number of mining machines used	Power used by machines	Geological and local names of seams	Average thickness in inches	Height of Seam in Inches		Approximate number of tons produced by machines
								Thickest	Thinnest	
Morrisdale Coal Co., ...	Morrisdale No. 1, ...	Shaft, ...	Non-gas., .	25	Compressed air and Electricity,	C and B or Middle and Lower Kittanning	54	72	36	233,252
	Morrisdale No. 2, ...	Shaft, ...	Non-gas., .	6	Compressed air,	C and B, Kittanning.	44	48	40	13,248
	Morrisdale No. 3, ...	Shaft, ...	Non-gas., .	20	Compressed air and Electricity,	C and B, Kittanning.	54	72	36	140,768
Totals, ...	....	....	....	51	....	....	......	......	......	387,268
Peale, Peacock and Kerr, Inc., ...	Ogle No. 9, ...	Slope,.....	Non-gas., .	10	Compressed air and Electricity,	B or Lower Kittanning.	44	48	40	92,819
Clearfield Bituminous Coal Corporation, ...	Grass Flat Nos. 9 and 10,	Drift, ...	Non-gas., .	2	Electricity,.....	B or Lower Kittanning.	44	48	40	95,473
	Pleasant Hill, ...	Drift, ...	Non-gas., .	2						90,322
Totals, ...	....	....	....	4	....	....	......	......	......	185,795
Moshannon Coal Mining Co., ...	Moshannon No. 10, ...	Drift, ...	Non-gas., .	4	Electricity,......	B or Lower Kittanning.	66	68	61	85,988

Pennsylvania Coal and Coke Corporation,	Winburne No. 46, Winburne No. 47,	Slope, Drift,	Non-gas., Non-gas.,	6 2	Electricity,	B or Lower Kittanning.	44	48	40	105,872 42,868
Totals,				8						148,740
Fall Brook Coal Co.,	Anna S,	Drift,	Non-gas.,	18	Compressed air,	B or Lower Kittanning.	42	48	46	151,604
Victoria Coal Mining Co.,	Acme No. 6,	Drift,	Non-gas.,	2	Electricity,	B or Lower Kittanning.	44	48	40	44,634
Osceola Coal Co.,	Leader No. 4,	Shaft,	Non-gas.,	6	Electricity,	B or Lower Kittanning.	48	60	54	75,256
Guion Coal Co.,	Guion,	Drift,	Non-gas.,	4	Compressed air,	C or Middle Kittanning.	48	54	52	49,245
Grand totals,				107						1,221,299

TABLE 1.—Operators, Location of Mines, Railroads, etc.

Names of Operators and Mines	County	Name of General Superintendent	Post Office	Name of Superintendent	Post Office	Railroad to Mine
Morrisdale Coal Co.						
Morrisdale No. 1,	Clearfield,	C. B. Maxwell,	Morrisdale,	R. F. Alstadt,	Morrisdale,	N. Y. C. and H. R.
Morrisdale No. 2,				John Maxwell,	Morrisdale,	Pennsylvania
Morrisdale No. 3,				Lewis Hohnkey,	Morrisdale,	N. Y. C. and H. R.
Morrisdale No. 4,				Albin Linelberg,	Allport,	N. Y. C. and H. R.
Morris Run Coal Mining Co.						
Jones,	Tioga,	T. S. Barber,	Wilkes-Barre,	Charles G. Morgan,	Morris Run,	N. Y. C. and H. R. and Erie
Jones No. 8,						
Lake,						
Peale, Peacock and Kerr, Inc.						
Ogle Nos. 1, 6,* 9,	Clearfield,	R. H. George,	Winburne,	....	....	N. Y. C. and H. R.
Decatur Nos. 3 and 8,		John C. Dunsmore,	Philipsburg,			
Clearfield Bituminous Coal Corporation						
Grassflat Nos. 9 and 10,	Clearfield,	H. J. Hinterleitner,	Clearfield,	Andrew Frendberg,	Grassflat,	N. Y. C. and H. R.
Knox Run,				Andrew Frendberg,		
Pleasant Hill,				Fred Bass,		
Lehigh Valley Coal Co.						
Lehigh Valley Nos. 9, 10, 12, 13, 18, 20, 22, 23,	Centre,	Thomas Thomas,	Wilkes-Barre,	W. C. Snyder,	Snow Shoe,	Pennsylvania
Moshannon Coal Mining Co.						
Electric,	Centre,	A. S. Brown,	Osceola Mills,	A. Jaap,	Osceola Mills,	Pennsylvania
Moshannon Nos. 10 and 11,						
Blossburg Coal Co.						
Arnot Nos. 1, 2, 5, 7,	Tioga,	John H. Fulford,	DuBois,	R. E. Logan,	Arnot,	Erie
Maple Hill,						
Bear Run,						
Pennsylvania Coal and Coke Corporation						
Winburne Nos. 45, 46, 47,	Clearfield,	....	....	A. O. Sommerville,	Winburne,	N. Y. C. and H. R.

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*Abandoned.

Fall Brook Coal Co.						
Anna S,	Tioga,	William Howell,	Antrim,	James Pollock,	Antrim,	N. Y. C. and H. R.
Kelley Brothers Coal Co.						
Cherry Run No. 3,	Centre,	M. D. Kelley,	Snow Shoe,	H. P. Kelley,	Snow Shoe,	Pennsylvania
Snow Shoe No. 5,	Centre,			H. P. Kelley,	Snow Shoe,	N. Y. C. and H. R.
Tunnell No. 6,	Centre,			I. F. Heaton,	Clarence,	N. Y. C. and H. R.
Myers Run,	Clearfield,			Matt Shaddock,	Karthaus,	N. Y. C. and H. R.
Karthus,	Clearfield,			Matt Shaddock,	Karthaus,	N. Y. C. and H. R.
Ashman Coal Co.						
Ghem,	Clearfield,	W. R. Wilbur,	Philipsburg,			N. Y. C. and H. R.
*Ashman No. 3,						
Victoria Coal Mining Co.						
Acme Nos. 2 and 6,	Clearfield,	C. J. Wittenburg,	Broadway, N. Y.,	S. B. Wittenburg,	Philipsburg,	N. Y. C. and H. R.
Goshen Coal Co.						
Goshen,	Clearfield,	Fred G. Betz,	Clearfield,			N. Y. C. and H. R.
J. Edward Horn and Co.						
Bloomington S Nos. 7, 9,	Centre,	J. Edward Horn,	Philipsburg,			N. Y. C. and H. R.
Osceola Coal Co.						
Leader Nos. 3 and 5,	Clearfield,	H. B. Swoope,	Madera,	John Stephenson,	Madera,	Pennsylvania
Leader No. 4,						
Irish Brothers Coal Co.						
Colorado No. 5,	Clearfield,	George Scott,	Philipsburg,	H. B. Scott,	Philipsburg,	N. Y. C. and H. R.
Atherton-Barnes Co.						
Bloomington S No. 14,	Centre,	John Barnes,	Philipsburg,			N. Y. C. and H. R.
Guion Coal Co.						
Guion,	Clearfield,	Jacob Swires,	Philipsburg,	Joseph Swires,	Philipsburg,	Pennsylvania
Kato Coal Co.						
Kato,	Centre,			Thomas Kelley,	Clarence,	N. Y. C. and H. R.
Thomas J. Lee						
Chester,	Centre,	Thomas J. Lee,	Philipsburg,	Harry Crago,	Philipsburg,	N. Y. C. and H. R.
F. J. Dunham and Co.						
Royal No. 2,	Centre,	George Stott,	Philipsburg,			N. Y. C. and H. R.
E. J. Goodyear and Sons,						
Goodyear No. 1,	Clearfield,	E. J. Goodyear,	Munsons,	E. J. Goodyear,	Munsons,	N. Y. C. and H. R.
Atherton and Barnes						
Troy,	Clearfield,	John Barnes,	Philipsburg,	William Peters,	Philipsburg,	N. Y. C. and H. R.

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*Abandoned.

TABLE 1.—Continued

Names of Operators and Mines	County	Name of General Superintendent	Post Office	Name of Superintendent	Post Office	Railroad to Mine
Ghem Coal Co. Ghem,	Centre,			Samuel Pfoutz,	Osceola Mills,	Pennsylvania
O'Donnell Brothers O'Donnell,	Tioga,	William O'Donnell,	Morris Run,	Mat Atkinson,	Morris Run,	N. Y. C. and H. R. and Erie
Lane Coal Co., Inc. Lane No. 5,	Clearfield,	H. W. Todd,	Philipsburg,	Daniel Milsom,	Allport,	N. Y. C. and H. R.
James F. Stott Red Jacket No. 1,	Centre,	James F. Stott,	Philipsburg,			N. Y. C. and H. R.
Cuba Coal Co. Colorado Nos. 3 and 4,	Clearfield,			George Trumble,	Morrisdale,	N. Y. C. and H. R.
Jefferson No. 1,						Pennsylvania
Gearhart Nos. 1 and 2,						N. Y. C. and H. R.
Jenkin Brothers Jenkin Brothers,	Tioga,	W. Scott Jenkins,	Blossburg,	W. Scott Jenkins,	Blossburg,	N. Y. C. and H. R.
Scootac Mining Co. Scootac,	Clinton,			J. H. Sankey,	Lock Haven,	Pennsylvania and Scootac
Ralston Coal Co. Red Run,	Lycoming,	J. W. Jones,	Ralston,	A. W. Auld,	Red Burn,	Pennsylvania
Grace Coal Mining Co. Grace No. 1,†	Centre,	S. B. Isenberg,	Osceola Mills,	S. B. Isenberg,	Osceola Mills,	Pennsylvania
Dunbar Coal Mining Co. Fairmont No. 2,	Clearfield,	B. F. McCartney,	Altoona,	Joseph Dugan,	Osceola Mills,	Pennsylvania
Blair Brothers Coal Co. Orient Nos. 4 and 5,	Centre,	H. C. Blair,	Tyrone,	S. B. Isenberg,	Osceola Mills,	Pennsylvania
Potter-Bigler and Potter, Inc. Horse Shoe,	Clearfield,	Charles E. Potter,	Puritan,			N. Y. C. and H. R.
Mt. Carmel,						

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†New mine.

White-Dugan Coal Co. Columbia No. 1,	Clearfield,	F. K. White,	Philipsburg,	F. K. White,	Philipsburg,	Pittsburgh and Susquehanna
Woodland Cannel Coal Co. Cannel Crest,	Clearfield,	A. E. Woolridge,	Woodland,	Harold D. Woolridge,	Woodland,	N. Y. C. and H. R.
Coaldale Mining Co. Coaldale No. 12,	Centre,	R. H. George,	Winburne,			N. Y. C. and H. R.
Nowak Coal Co. Jenkins,	Tioga,			Adam Gruslewski,	Blossburg,	N. Y. C. and H. R.
Moravian Coal Co. Moravian,	Clearfield,	O. J. Harrm,	Snow Shoe,	W. D. O'Brien,	Snow Shoe,	N. Y. C. and H. R.
Heath Brothers Retort,	Centre,	J. M. Baker,	Woodland,	Charles Heath,	Sandy Ridge,	Tram Road
A. B. Lansbery Lansbery,	Clearfield,	A. B. Lansbery,	Woodland,			N. Y. C. and H. R.
W. F. Holt Phoenix,	Clearfield,	W. F. Holt,	Philipsburg,			N. Y. C. and H. R.
William J. Davis Davis No. 2,	Centre,	Lew Davis,	Osceola Mills,			Pennsylvania
William Frasier Frasier,	Bradford,	James H. Frasier,	Laquin,			S. and N. Y.
Osceola Coal Mining Co. Penn No. 7,	Clearfield,	A. K. Wright,	Clearfield,			Pittsburgh and Susquehanna
Edward Harris and Sons Lane No. 1,†	Clearfield,					N. Y. C. and H. R.
John Barnes and Sons Lancashire No. 2,	Clearfield,	E. H. Hughes,	Philipsburg,			Pennsylvania
Red Jacket Coal Mining Co. Red Jacket No. 2,	Clearfield,	A. H. Nelson,	West Decatur,			Pennsylvania
Blossburg and Coal Run Coal Co. Coal Run Nos. 4 and 5,	Tioga,	Charles Shults,	Blossburg,			N. Y. C. and H. R.
Jones Hill Coal Co. Jones Hill,†	Tioga,	Malcolm McDougall,	Blossburg,	Malcolm McDougall,	Blossburg,	Erie
Rock Run Coal Co. Rock Run,†	Lycoming,			Daniel T. Jenkins,	Blossburg,	S. and N. Y. and Tram Road

†New mine.

TABLE 2.—Number of tons of coal mined and tons of coke produced, number of days worked, number of persons employed, number killed and injured, quantity of powder, dynamite and permissible explosives used, etc.

Names of Operators and Mines	County	Number of tons of coal shipped to market	Number of tons used at mines for steam and heat	Number of tons sold to local trade and used by employes	Number of tons used in manufacture of coke	Total production of coal in tons	Total production of coke in tons	Number of coke ovens	Number of days worked	Number of employes	Number of fatal accidents	Number of non-fatal accidents	Explosives			Number of horses and mules
													Number of pounds of powder used	Number of pounds of dynamite used	Number of pounds of permissible explosives used	
Morrisdale Coal Co.																
Morrisdale No. 1,	Clearfield,	240,322	17,808	1,684	....	259,814	......	......	295	285	....	1	46,000	1,000	......	30
Morrisdale No. 2,		9,885	8,669	567	....	19,121	......	......	266	59	....	....	5,000	1,000	......	....
Morrisdale No. 3,		151,097	10,080	....	....	161,177	......	......	293	190	1	1	38,000	1,200	......	2
Morrisdale No. 4,		11,855	....	....	....	11,855	......	......	267	14	....	....	1,500	....	......	3
Totals,	....	413,159	36,557	2,251	....	451,967	......	......	......	548	1	2	90,500	3,200	......	35
Morris Run Coal Mining Co.																
Jones,	Tioga,	304,629	3,763	3,021	....	311,413	......	......	260	485	....	2	50,000	4,000	......	29
Jones No. 8,		29,130	....	....	....	29,130	......	......	266	143	....	....	4,650	1,800	......	4
Lake,		56,400	....	....	....	56,400	......	......	182	100	....	....	9,000	800	......	6
Totals,	....	390,159	3,763	3,021	....	396,943	......	......	......	728	....	2	63,650	6,600	......	39
Peale, Peacock and Kerr, Inc.																
Ogle No. 1,	Clearfield,	129,077	1,708	741	....	131,526	......	......	264	148	....	....	30,075	750	......	....
Ogle No. 6,		28,080	....	....	....	28,080	......	......	189	31	....	1	6,125	275	......	....
Ogle No. 9,		171,630	4,936	....	....	176,566	......	......	269	182	....	2	40,750	800	......	....
Decatur No. 3,		13,143	....	....	....	13,143	......	......	298	11	....	....	2,620	....	......	2
Decatur No. 8,		9,175	....	....	....	9,175	......	......	219	21	....	....	2,175	....	......	2
Totals,	....	351,105	6,644	741	....	358,490	......	......	......	388	....	3	81,745	1,826	......	4

Clearfield Bituminous Coal Corporation																
Grass Flat Nos. 9 and 10, ..	Clearfield, ...	129,333	604	448	....	130,385	......	......	257	160	....	....	70,000	....	......	5
Knox Run, ...		86,731	568	42	....	87,341	......	......	254	95	....	....	21,000	....	......	9
Pleasant Hill, ...		114,594	2,844	788	....	118,226	......	......	257	132	....	....	41,050	685	......	1
Totals, ...	....	330,658	4,016	1,278	....	335,952	......	......	......	387	....	....	132,050	685	......	15
Lehigh Valley Coal Co.																
Lehigh Valley No. 9, ...	Centre, ...	70,167	....	....	....	70,167	......	......	293	85	....	....	18,250	....	......	11
Lehigh Valley No. 10, ...		29,702	....	....	....	29,702	......	......	286	35	....	1	11,950	....	......	4
Lehigh Valley No. 12, ...		55,083	....	....	....	55,083	......	......	286	72	....	....	3,900	....	......	4
Lehigh Valley No. 13, ...		22,569	....	....	....	22,569	......	......	280	25	....	....	3,250	....	......	1
Lehigh Valley No. 18, ...		10,536	....	....	....	10,536	......	......	286	12	....	....	4,750	....	......	1
Lehigh Valley No. 20, ...		36,418	....	....	....	36,418	......	......	292	43	....	....	23,850	....	......	3
Lehigh Valley Nos. 22 and 23,		101,096	80	308	....	101,484	......	......	293	98	1	....	68,452	....	......	10
Totals, ...	....	325,571	80	308	....	325,959	......	......	......	370	1	1	134,402	....	......	34
Moshannon Coal Mining Co.																
Electric, ...	Centre, ...	57,670	....	....	....	57,670	......	......	265	56	....	....	....	....	......	8
Moshannon No. 10, ...		144,001	1,496	....	....	145,497	......	......	305	141	....	2	....	....	......	11
Moshannon No. 11, ...		120,096	....	470	....	120,566	......	......	282	128	....	....	....	....	......	3
Totals, ...	....	321,767	1,496	470	....	323,733	......	......	......	325	....	2	....	....	......	22
Blossburg Coal Co.																
Arnot No. 1, ...	Tioga, ...								148							
Arnot No. 2, ...									148	....	....	1	....	....	......	....
Arnot No. 5, ...		208,073	4,319	2,620	....	215,012			146	405	....	....	....	....	......	27
Arnot No. 7, ...									128							
Maple Hill, ...		54,045	137	44	....	54,226	......	......	282	98	....	2	....	....	......	10
Bear Run, ...		23,306	1,082	187	....	24,575	......	......	141	41	....	....	....	....	......	....
Totals, ...	....	285,424	5,538	2,851	....	293,813	......	......	......	544	....	3	....	....	......	37
Pennsylvania Coal and Coke Corporation																
Winburne No. 45, ...	Clearfield, ...	89,861	1,264	43	....	91,168	......	......	255	75	....	1	81,800	50	......	....
Winburne No. 46, ...		131,632	6,617	9	....	138,258	......	......	237	136	1	1	48,220	300	......	....
Winburne No. 47, ...		54,753	5	224	....	54,982	......	......	267	84	....	....	19,177	50	......	....
Totals, ...	....	276,246	7,886	276	....	284,408	......	......	......	295	1	2	99,197	400	......	....
Fall Brook Coal Co.																
Anna S, ...	Tioga, ...	202,012	....	2,242	....	204,254	......	......	280	334	....	1	29,875	1,100	......	38

TABLE 2.—Continued

Names of Operators and Mines	County	Number of tons of coal shipped to market	Number of tons used at mines for steam and heat	Number of tons sold to local trade and used by employes	Number of tons used in manufacture of coke	Total production of coal in tons	Total production of coke in tons	Number of coke ovens	Number of days worked	Number of employes	Number of fatal accidents	Number of non-fatal accidents	Explosives			Number of horses and mules
													Number of pounds of powder used	Number of pounds of dynamite used	Number of pounds of permissible explosives used	
Kelley Brothers Coal Co.																
Cherry Run No. 3,	Centre,	127,583	427	315	....	128,275	......	......	280	135	....	....	20,000	500	......	12
Snow Shoe No. 5,	Centre,	19,970	105	125	....	20,200	......	......	181	39	....	1	2,200	200	......	3
Tunnell No. 6,	Centre,	15,992	68	85	....	16,145	......	......	189	35	....	2	1,200	200	......	3
Myers Run,	Clearfield,	5,492	32	30	....	5,554	......	......	72	28	....	....	300	100	......	2
Karthus,	Clearfield,	2,974	15	5	....	2,994	......	......	55	21	....	....	150	50	......	2
Totals,		171,961	647	560	....	173,168	......	......	......	258	....	3	23,850	1,050	......	22
Ashman Coal Co.																
Ghem,	Clearfield,	76,740	4,870	504	....	82,114	......	......	281	96	1	2	10,000	2,400	......	2
Ashman No. 3,	Clearfield,	22,245	....	8	....	22,253	......	......	164	45	....	....	1,225	250	......	7
Totals,		98,985	4,870	512	....	104,367	......	......	......	141	1	2	11,225	2,650	......	9
Victoria Coal Mining Co.																
Acme No. 2,	Clearfield,	36,485	2,447	343	....	39,275	......	......	139	101	....	2	4,500	15	......	7
Acme No. 6,	Clearfield,	62,080	1,647	37	....	63,764	......	......	239	71	....	....	7,500	35	......	....
Totals,		98,565	4,094	380	....	103,039	......	......	......	172	....	2	12,000	50	......	7
Goshen Coal Co.																
Goshen,	Clearfield,	98,199	287	108	....	98,588	......	......	276	120	....	....	13,700	550	......	11
J. Edward Horn and Co.																
Bloomington S No. 7,	Centre,	43,024	304	8	....	43,336	......	......	271	47	....	1	1,355	....	......	10
Bloomington S No. 9,	Centre,	42,811	204	5	....	43,020	......	......	276	42	....	1	763	....	......	9
Totals,		85,835	508	13	....	86,356	......	......	......	89	....	2	2,118	....	......	19

Osceola Coal Co.																
Leader Nos. 3 and 5,	Clearfield,	9,586	....	....	....	9,586	......	......	270	12	....	....	....	....	......	....
Leader No. 4,	Clearfield,	72,136	3,120	....	....	75,256	......	......	236	88	....	....	15,344	794	......	15
Totals,	....	81,722	3,120	....	....	84,842	......	......	......	100	....	...	15,344	794	......	15
Irish Brothers Coal Co.																
Colorado No. 5,	Clearfield,	81,943	2,202	500	....	84,645	......	......	279	100	....	1	5,250	650	......	2
Atherton-Barnes Co.																
Bloomington S No. 14,	Centre,	67,512	....	....	....	67,512	......	......	232	68	....	1	400	....	......	....
Guion Coal Co.																
Guion,	Clearfield,	60,598	2,312	168	....	63,078	......	......	265	72	....	1	7,500	75	......	8
Kato Coal Co.																
Kato,	Centre,	58,451	....	414	....	58,865	......	......	295	91	....	....	22,500	1,200	......	5
Thomas J. Lee																
Chester,	Centre,	56,250	1,266	904	....	58,420	......	......	256	58	....	....	10,000	725	......	5
F. J. Dunham and Co.																
Royal No. 2,	Centre,	54,751	....	168	....	54,919	......	......	239	85	....	....	6,250	....	......	9
E. J. Goodyear and Sons																
Goodyear No. 1,	Clearfield,	42,841	380	30	....	43,251	......	......	264	65	....	....	9,850	220	......	11
Atherton and Barnes																
Troy,	Clearfield,	42,795	....	....	....	42,795	......	......	245	58	....	....	1,875	....	......	4
Ghem Coal Co.																
Ghem,	Centre,	42,037	....	12	....	42,049	......	......	238	41	....	....	4,140	....	......	9
O'Donnell Brothers																
O'Donnell,	Tioga,	41,754	....	184	....	41,938	......	......	261	49	....	....	4,500	550	......	4
Lane Coal Co., Inc.																
Lane No. 5,	Clearfield,	38,853	....	151	....	39,004	......	......	235	46	....	....	2,625	....	......	8
James F. Stott,																
Red Jacket No. 1,	Centre,	38,598	....	336	....	38,934	......	......	188	48	....	1	5,000	....	......	8
Cuba Coal Co.																
Colorado Nos. 3 and 4,	Clearfield,	14,812	....	....	....	14,812	......	......	191	17	....	....	....	....	......	5
Jefferson No. 1,		9,854	....	....	....	9,854	......	......	232	17	....	....	....	....	......	4
Gearhart Nos. 1 and 2,		6,989	....	....	....	6,989	......	......	228	18	....	....	....	....	......	4
Totals,	....	31,655	....	....	....	31,655	......	......	......	52	....	....	....	....	......	13
Jenkin Brothers																
Jenkin Brothers,	Tioga,	31,573	....	....	....	31,573	......	......	241	47	....	....	6,500	....	......	4

TABLE 2.—Continued

Names of Operators and Mines	County	Number of tons of coal shipped to market	Number of tons used at mines for steam and heat	Number of tons sold to local trade and used by employes	Number of tons used in manufacture of coke	Total production of coal in tons	Total production of coke in tons	Number of coke ovens	Number of days worked	Number of employes	Number of fatal accidents	Number of non-fatal accidents	Explosives			Number of horses and mules
													Number of pounds of powder used	Number of pounds of dynamite used	Number of pounds of permissible explosives used	
Scootac Mining Co. Scootac, ...	Clinton, ...	26,487	450	421	....	27,358	......	......	290	50	....	....	10,473	....	......	12
Ralston Coal Co. Red Run, ...	Lycoming, ...	24,315	2,309	165	....	26,789	......	......	240	60	....	....	....	....	......	3
Grace Coal Mining Co. Grace No. 1, ...	Centre, ...	20,926	....	362	....	21,288	......	......	272	37	....	....	9,600	....	......	7
Dunbar Coal Mining Co. Fairmont No. 2, ...	Clearfield, ...	20,561	6	16	....	20,583	......	......	251	34	....	....	2,650	....	......	5
Blair Brothers Coal Co. Orient Nos. 4 and 5, ...	Centre, ...	19,564	....	....	....	19,564	......	......	239	39	....	....	7,500	100	......	3
Potter-Bigler and Potter, Inc. Horse Shoe, ...	Clearfield, ...	12,351	....	....	....	12,351	......	......	83	46	....	....	1,900	....	......	5
Mt. Carmel, ...	Clearfield, ...	5,449	....	....	....	5,449	......	......	101	15	....	....	1,175	....	......	2
Totals, ...	....	17,800	....	....	....	17,800	......	......	......	61	....	....	3,075	....	......	7
White-Dugan Coal Co. Columbia No. 1, ...	Clearfield, ...	17,199	56	....	....	17,255	......	......	226	23	....	....	3,175	1,200	......	3
Woodland Cannel Coal Co. Cannel Crest, ...	Clearfield, ...	17,035	17	....	....	17,052	......	......	155	56	....	....	....	....	......	3

Coaldale Mining Co. Coaldale No. 12,	Centre,	17,085	....	....	....	17,085	......	......	160	25	....	....	3,226	....	......	4
Nowak Coal Co. Jenkins,	Tioga,	12,728	22	2,747	....	15,497	......	......	241	25	....	....	....	....	......	2
Moravian Coal Co. Moravian,	Clearfield,	13,260	30	....	....	13,290	......	......	166	59	....	1	2,500	100	......	4
Heath Brothers Retort,	Centre,	11,499	70	784	....	12,353	......	......	251	20	....	....	3,782	....	......	2
A. B. Lansbery, Lansbery,	Clearfield.	10,948	100	558	....	11,606	......	......	142	26	....	....	....	....	......	4
W. F. Holt Phoenix,	Clearfield,	11,505	....	....	....	11,505	......	......	239	13	....	....	....	....	......	3
William J. Davis Davis No. 2,	Centre,	10,980	....	67	....	11,047	......	......	242	16	....	....	3,750	75	......	3
William Frazier Frazier,	Bradford,	9,647	....	1,301	....	10,948	......	......	256	27	....	....	....	....	......	3
Osceola Coal Mining Co. Penn No. 7,	Clearfield,	7,739	....	....	....	7,739	......	......	193	11	....	....	750	392	......	2
Edward Harris and Sons Lane No. 1,	Clearfield,	7,280	....	34	....	7,314	......	......	179	19	....	....	250	....	......	3
John Barnes and Sons Lancashire No. 2,	Clearfield,	6,819	....	....	....	6,819	......	......	239	10	....	....	500	....	......	2
Red Jacket Coal Mining Co. Red Jacket No. 2,	Clearfield,	6,720	....	....	....	6,720	......	......	200	13	....	....	250	....	......	2
Blossburg and Coal Run Coal Co. Coal Run Nos. 4 and 5,	Tioga,	3,638	....	239	....	3,877	......	......	286	12	....	....	1,800	1,200	......	1
Jones Hill Coal Co. Jones Hill,	Tioga,	2,055	....	306	....	2,361	......	......	72	22	....	....	....	125	......	2
Rock Run Coal Co. Rock Run,	Lycoming,	2,000	....	....	....	2,000	......	......	100	15	....	....	....	....	......	1
Grand totals,	....	4,513,719	88,676	24,872	....	4,627,267	....	......	......	6,352	4	30	849,326	25,516	......	472

TABLE 2—Part 2

Names of Operators	County	Number of Boilers					Locomotives				Number of steam engines of all classes	Total horse power	Number of pumps delivering water to surface	Capacity in gallons per minute	Quantity delivered to surface per minute—gallons	Number of electric dynamos	Number of air compressors
		Cylindrical	Horse power	Tubular	Horse power	Total horse power	Gasoline	Steam	Air	Electric							
Morrisdale Coal Co.,	Clearfield,	....	....	17	2,600	2,600	....	....	....	11	17	2,300	11	5,100	3,500	3	5
Morris Run Coal Mining Co.,	Tioga,	....	....	3	400	400	....	....	....	9	4	400	....	....	....	4	....
Peale, Peacock and Kerr, Inc.,	Clearfield,	....	....	6	900	900	....	....	....	7	8	1,000	....	....	....	4	2
Clearfield Bituminous Coal Corporation,	Clearfield,	....	....	6	710	710	....	....	....	4	7	550	6	800	450	2	....
Lehigh Valley Coal Co.,	Centre,	....	....	....	....	....	....	3	....	....	....	60	....	....	....	....	....
Moshannon Coal Mining Co.,	Centre,	....	....	3	450	450	....	....	....	4	2	230	....	....	....	3	....
Blossburg Coal Co.,	Tioga,	....	....	6	700	700	....	3	....	5	3	240	....	....	....	3	....
Pennsylvania Coal and Coke Corporation,	Clearfield,	....	....	7	1,100	1,100	....	....	....	13	4	750	11	4,600	3,900	2	....
Fall Brook Coal Co.,	Tioga,	....	....	5	455	455	....	....	....	....	6	455	3	200	120	....	3
Kelley Brothers Coal Co.,	Centre, Clearfield,	....	....	2	70	70	....	2	....	....	3	138	6	600	200	....	1
Ashman Coal Co.,	Clearfield,	....	....	3	330	330	....	....	....	2	3	245	4	1,700	1,700	2	....
Victoria Coal Mining Co.,	Clearfield,	4	240	1	125	365	....	....	....	3	3	175	5	2,300	2,000	....	....
Osceola Coal Co.,	Clearfield,	....	....	2	300	300	....	....	....	....	4	440	1	400	100	1	....
Irish Brothers Coal Co.,	Clearfield,	....	....	2	250	250	....	....	....	2	4	330	1	250	100	2	....
Atherton-Barnes Co.,	Centre,	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....
Guion Coal Co.,	Clearfield,	....	....	2	230	230	....	....	....	....	2	30	1	261	261	....	1
Kato Coal Co.,	Centre,	....	....	....	....	....	....	....	....	....	....	....	2	300	200	....	....
Thomas J. Lee,	Centre,	....	....	2	150	150	....	....	....	....	1	60	3	250	200	....	....
E. J. Goodyear and Sons,	Clearfield,	....	....	....	....	....	....	....	....	....	....	....	1	300	300	....	....
Scootac Mining Co.,	Clinton,	....	....	1	20	20	....	....	....	....	....	....	1	100	50	....	....
Ralston Coal Co.,	Lycoming,	....	....	4	240	240	....	....	....	2	2	225	....	....	....	2	....
White-Dugan Coal Co.,	Clearfield,	....	....	....	....	....	....	....	....	....	1	30	1	600	150	....	....
Woodland Cannel Coal Co.,	Clearfield,	....	....	....	....	....	....	1	....	....	1	30	....	....	....	....	....

Moravian Coal Co.,	Clearfield,	......	......	....	....	....	....	....	....	....	......	....	2	400	200	......	......
Heath Brothers,	Centre,	......	......	....	....	....	....	1	....	....	1	80	....	....	....	......	......
A. B. Lansbery,	Clearfield,	......	......	....	....	....	....	1	....	....	1	80	....	....	....	......	......
W. F. Holt,	Clearfield,	......	......	....	....	....	....	....	....	....	......	....	1	100	100	......	......
William Frasier,	Bradford,	1	8	....	....	8	....	....	....	....	......	....	1	100	50	......	......
Osceola Coal Mining Co.,	Clearfield,	......	......	....	....	....	....	....	....	....	......	....	3	240	80	......	......
Totals,	....	5	248	77	9,080	9,328	....	12	....	62	77	7,848	64	18,601	13,661	27	12

TABLE 3.—Number of Each Class of Employes Inside and Outside of Mines

Names of Operators	County	Inside											Outside								Grand total inside and outside
		Mine foremen	Assistant mine foremen	Fire bosses	Miners	Machine runners	Machine loaders	Machine scrapers	Drivers and runners	Doorboys and helpers	Company men	All other employes	Total inside	Superintendents	Foremen	Blacksmiths and carpenters	Engineers and firemen	Coke employes	Bookkeepers and clerks	All oher employes	Total outside	
Morrisdale Coal Co.,	Clearfield,	4	7	....	90	10	284	10	35	11	36	15	502	3	3	11	19	....	5	5	46	548
Morris Run Coal Mining Co.,	Tioga,	4	....	....	550	......	......	......	55	24	27	......	660	1	2	9	4	....	4	48	68	728
Peale, Peacock and Kerr, Inc.,	Clearfield,	5	....	....	231	5	53	5	22	6	....	18	345	1	....	5	8	....	1	28	43	388
Clearfield Bituminous Coal Corporation,	Clearfield,	3	2	....	147	8	137	8	7	2	....	31	345	....	1	6	6	....	1	28	42	387
Lehigh Valley Coal Co.,	Centre,	7	....	....	306	......	......	......	12	2	....	3	330	5	4	5	5	....	5	16	40	370
Moshannon Coal Mining Co.,	Centre,	3	....	....	246	6	......	6	20	1	14	......	296	2	....	6	3	....	....	18	29	325
Blossburg Coal Co.,	Tioga,	6	2	....	420	......	......	......	30	....	3	24	485	1	1	6	6	....	3	42	59	544
Pennsylvania Coal and Coke Corporation,	Clearfield,	3	1	....	119	7	99	7	12	....	14	......	262	1	....	6	7	....	2	17	33	295
Fall Brook Coal Co.,	Tioga,	1	1	....	78	22	110	21	19	4	4	12	272	1	1	7	7	....	3	43	62	334
Kelley Brothers Coal Co.,	Centre, Clearfield,	5	1	....	198	......	......	......	12	1	10	......	227	4	3	7	3	....	5	9	31	258
Ashman Coal Co.,	Clearfield,	2	....	....	108	......	......	......	9	....	3	3	125	2	1	3	2	....	2	6	16	141
Victoria Coal Mining Co.,	Clearfield,	2	....	....	98	2	33	2	2	....	12	......	151	1	1	4	4	....	1	10	21	172
Goshen Coal Co.,	Clearfield,	1	....	....	90	......	......	......	6	1	....	6	104	....	....	1	....	....	1	14	16	120
J. Edward Horn and Co.,	Centre,	2	....	....	65	......	......	......	9	....	6	......	82	....	....	2	....	....	1	4	7	89
Osceola Coal Co.,	Clearfield,	2	....	....	9	5	49	5	6	3	8	......	87	....	1	2	4	....	1	5	13	100
Irish Brothers Coal Co.,	Clearfield,	1	1	....	78	......	......	......	2	....	7	......	89	1	....	3	2	....	....	5	11	100
Atherton-Barnes Co.,	Centre,	1	....	....	53	......	......	......	......	1	5	......	60	....	1	1	....	....	1	5	8	68
Guion Coal Co.,	Clearfield.	1	....	....	20	4	26	4	4	....	3	......	62	1	....	1	3	....	1	4	10	72

Kato Coal Co., ...	Centre, ...	1	1	....	80	......	......	......	4	....	1	......	87	....	1	1	....	....	1	1	4	91
Thomas J. Lee, ...	Centre, ...	1	....	....	47	......	......	......	2	....	1	......	51	....	....	1	2	....	....	4	7	58
F. J. Dunham and Co., ...	Centre, ...	1	....	....	75	......	......	......	4	....	1	......	81	1	....	1	....	....	1	1	4	85
E. J. Goodyear and Sons, ...	Clearfield, ...	1	....	....	56	......	......	......	6	....	....	......	68	....	....	1	....	....	....	1	2	65
Atherton and Barnes,	Clearfield, ...	1	....	....	50	......	......	......	3	....	3	......	57	....	....	1	....	....	....	....	1	58
Ghem Coal Co., ...	Centre, ...	1	....	....	34	......	......	......	3	....	1	......	39	....	....	1	....	....	....	1	2	41
O'Donnell Brothers, ..	Tioga, ...	1	....	....	40	......	......	......	4	....	....	......	45	....	....	....	....	....	1	3	4	49
Lane Coal Co., Inc.,..	Clearfield, ...	1	....	....	40	......	......	......	2	....	1	......	44	1	....	....	....	....	....	1	2	46
James F. Stott, ...	Centre, ...	1	....	....	40	......	......	......	3	....	....	......	44	....	....	1	....	....	1	2	4	48
Cuba Coal Co., ...	Clearfield, ...	3	....	....	43	......	......	......	3	....	2	......	51	....	....	1	....	....	....	....	1	52
Jenkin Brothers, ...	Tioga, ...	1	....	....	40	......	......	......	4	....	....	......	45	1	....	....	....	....	1	....	2	47
Scootac Mining Co., .	Clinton, ...	1	....	....	36	......	......	......	4	....	4	......	45	....	1	1	2	....	....	1	5	50
Ralston Coal Co., ...	Lycoming, ...	1	1	....	45	......	......	......	2	....	2	......	51	....	....	2	1	....	1	5	9	60
Grace Coal Mining Co., ...	Centre, ...	1	....	....	30	......	......	......	2	1	....	......	34	....	....	....	....	....	....	3	3	37
Dunbar Coal Mining Co., ...	Clearfield, ...	1	....	....	27	......	......	......	2	....	1	......	31	....	....	1	....	....	....	2	3	34
Blair Brothers Coal Co., ...	Centre, ...	1	....	....	30	......	......	......	4	1	2	......	38	1	....	....	....	....	....	....	1	39
Potter-Bigler and Potter, Inc., ...	Clearfield, ...	2	....	....	49	......	......	......	4	....	1	......	56	....	....	1	....	....	....	4	5	61
White-Dugan Coal Co.,	Clearfield, ...	1	....	....	16	......	......	......	1	....	2	......	20	1	....	....	1	....	1	....	3	23
Woodland Cannel Coal Co., ...	Clearfield, ...	1	....	....	43	......	......	......	2	....	1	......	47	1	....	1	1	....	1	5	9	56
Coaldale Mining Co.,..	Centre, ...	1	....	....	20	......	......	......	2	....	....	......	23	....	....	....	....	....	....	2	2	25
Nowak Coal Co., ...	Tioga, ...	1	....	....	20	......	......	......	2	....	....	......	23	....	....	....	....	....	....	2	2	25
Moravian Coal Co., ..	Clearfield, ...	1	....	....	50	......	......	......	2	1	1	......	55	1	....	1	....	....	1	1	4	59
Heath Brothers, ...	Centre, ...	1	....	....	16	......	......	......	2	....	....	......	19	....	....	....	1	....	....	....	1	20
A. B. Lansbery, ...	Clearfield, ...	1	....	....	15	......	......	......	2	....	....	......	18	1	1	1	2	....	1	2	8	26
W. F. Holt, ...	Clearfield, ...	1	....	....	11	......	......	......	1	....	....	......	13	....	....	....	....	....	....	....	......	13
William J. Davis, ...	Centre, ...	1	....	....	11	......	......	......	2	....	....	......	14	1	....	....	....	....	....	1	2	16
William Frasier, ...	Bradford, ...	1	....	....	23	......	......	......	1	....	....	1	26	....	....	....	....	....	1	....	1	27
Osceola Coal Mining Co., ...	Clearfield, ...	1	....	....	9	......	......	......	1	....	....	......	11	....	....	....	....	....	....	....	......	11
Edward Harris and Sons, ...	Clearfield, ...	1	....	....	14	......	......	......	3	....	....	......	18	....	....	....	....	....	1	....	1	19
John Barnes and Sons,	Clearfield, ...	1	....	....	7	......	......	......	1	....	....	......	9	....	....	....	....	....	1	....	1	10
Red Jacket Coal Mining Co., ...	Clearfield, ...	1	....	....	10	......	......	......	......	....	....	......	11	1	....	1	....	....	....	....	3	13
Blossburg and Coal Run Coal Co., ...	Tioga, ...	1	....	....	8	......	......	......	1	....	1	......	11	1	....	....	....	....	....	....	1	12
Jones Hill Coal Co.,..	Tioga, ...	1	....	....	17	......	......	......	2	....	....	......	20	1	1	....	....	....	....	....	2	22
Rock Run Coal Co.,..	Lycoming, ...	1	....	....	12	......	......	......	1	....	....	......	14	1	....	....	....	....	....	....	1	15
Totals, ...	....	90	17	....	3,970	69	741	68	344	59	227	113	5,698	37	23	102	93	....	50	349	654	6,352

TABLE 3.—Part 2

Names of Operators	County	Average Number of Days Worked												
		January	February	March	April	May	June	July	August	September	October	November	December	Total
Morrisdale Coal Co.,	Clearfield,	25	22	23	23	23	22	21	21	23	26	22	19	270
Morris Run Coal Mining Co.,	Tioga,	25	24	26	16	20	24	24	24	15	16	12	10	236
Peale, Peacock and Kerr, Inc.,	Clearfield,	19	19	17	23	23	22	23	23	23	21	17	18	248
Clearfield Bituminous Coal Corporation,	Clearfield,	26	24	23	19	15	13	17	23	25	25	23	23	256
Lehigh Valley Coal Co.,	Centre,	26	24	23	24	24	23	24	25	24	25	22	24	288
Moshannon Coal Mining Co.,	Centre,	25	24	23	18	24	23	24	26	24	26	24	23	283
Blossburg Coal Co.,	Tioga,	14	13	14	14	14	14	14	15	13	14	13	14	166
Pennsylvania Coal and Coke Corporation,	Clearfield,	25	16	20	21	21	19	22	16	23	25	22	23	253
Fall Brook Coal Co.,	Tioga,	26	23	24	10	13	15	17	18	19	22	22	21	230
Kelley Brothers Coal Co.,	Centre, Clearfield,	23	17	15	10	10	11	10	11	13	14	10	11	155
Ashman Coal Co.,	Clearfield,	25	24	24	21	19	24	24	13	13	14	10	12	223
Victoria Coal Mining Co.,	Clearfield,	25	24	22	12	13	13	12	12	12	22	25	23	214
Goshen Coal Co.,	Clearfield,	26	24	24	25	25	24	24	18	24	23	20	19	276
J. Edward Horn and Co.,	Centre,	24	24	23	21	19	23	24	23	24	25	22	21	272
Osceola Coal Co.,	Clearfield,	26	23	21	20	13	14	25	25	24	26	21	16	258
Irish Brothers Coal Co.,	Clearfield,	23	24	24	25	17	22	23	24	26	23	24	24	279
Atherton-Barnes Co.,	Centre,	26	20	10	20	20	20	20	14	24	24	21	13	232
Guion Coal Co.,	Clearfield,	22	20	20	24	24	22	24	22	21	24	20	23	265
Kato Coal Co.,	Centre,	24	23	25	23	26	25	24	26	25	26	24	24	295
Thomas J. Lee,	Centre,	26	22	11	15	24	16	25	25	25	26	24	17	256
F. J. Dunham and Co.,	Centre,	26	19	17	7	15	12	23	25	25	27	21	22	239
E. J. Goodyear and Sons,	Clearfield,	26	23	16	11	19	23	25	26	24	27	23	23	264
Atherton and Barnes,	Clearfield,	24	23	16	14	16	15	26	25	24	26	21	16	245
Ghem Coal Co.,	Centre,	24	20	14	8	23	12	16	26	24	26	22	23	238
O'Donnell Brothers,	Tioga,	24	24	23	15	19	15	23	25	23	26	22	23	261
Lane Coal Co., Inc.,	Clearfield,	25	18	15	6	15	17	20	26	25	25	23	20	235
James F. Stott,	Centre,	26	14	11	1	16	12	13	13	25	21	20	16	188
Cuba Coal Co.,	Clearfield,	22	21	20	17	20	9	9	20	23	24	21	13	219
Jenkin Brothers,	Tioga,	22	28	21	20	13	23	24	20	18	21	13	16	241
Scootac Mining Co.,	Clinton,	26	24	25	26	23	19	26	26	24	27	21	23	290
Ralston Coal Co.,	Lycoming,	20	20	20	20	20	20	20	20	20	20	20	20	240
Grace Coal Mining Co.,	Centre,	25	20	17	19	20	25	21	26	26	25	27	22	272
Dunbar Coal Mining Co.,	Clearfield,	26	24	23	10	11	23	26	25	24	27	21	14	251

Blair Brothers Coal Co.,	Centre,	24	21	25	19	17	18	15	15	21	23	22	19	239
Potter-Bigler and Potter, Inc.,	Clearfield,	14	8	4	......	......	3	7	8	9	16	12	11	92
White-Dugan Coal Co.,	Clearfield,	25	25	26	16	......	......	15	26	25	21	25	22	226
Woodland Cannel Coal Co.,	Clearfield,	21	10	8	10	7	7	5	17	23	14	19	14	155
Coaldale Mining Co.,	Centre,	24	21	3	4	2	18	25	26	24	13	......	......	160
Nowak Coal Co.,	Tioga,	23	23	21	22	20	23	19	23	21	4	22	20	241
Moravian Coal Co.,	Clearfield,	......	......	......	......	......	24	24	22	24	26	23	23	166
Heath Brothers,	Centre,	25	24	22	16	19	20	22	21	21	22	18	21	251
A. B. Lansbery,	Clearfield,	15	10	16	18	13	......	......	20	15	15	20	......	142
W. F. Holt,	Clearfield,	18	18	16	20	19	21	22	22	20	22	21	20	239
William J. Davis,	Centre,	26	25	25	27	5	20	22	15	20	17	20	20	242
William Frazier,	Bradford,	23	23	16	22	22	19	18	22	24	22	22	23	256
Osceola Coal Mining Co.,	Clearfield,	24	24	23	19	18	19	22	22	22	......	......	......	193
Edward Harris and Sons,	Clearfield,	23	22	16	......	......	3	......	24	21	23	23	24	179
John Barnes and Sons,	Clearfield,	17	26	27	15	5	4	15	27	26	26	24	27	239
Red Jacket Coal Mining Co.,	Clearfield,	20	20	20	20	10	10	10	15	15	20	20	20	200
Blossburg and Coal Run Coal Co.,	Tioga,	22	23	25	24	23	24	25	24	22	25	24	25	286
Jones Hill Coal Co.,	Tioga,	......	......	......	......	......	......	......	......	......	25	24	23	72
Rock Run Coal Co.,	Lycoming,	......	......	......	......	......	......	......	5	20	25	25	25	100

TABLE 4.—Fatal Accidents Inside and Outside of Mines

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Number of widows	Number of orphans	Name of Mine	County	Nature and Cause of Accident in Brief
Jan. 6	Charles Perewski, ...	Polish,......	Miner, ...	40	M.	1	....	Ghem, ...	Clearfield, ...	Fatally burned by powder which he was carrying in a loose cotton sack in his pocket. He was smoking a cigarette and the strong air current blew sparks into his pocket and ignited the powder.
Aug. 16	John Catharena, ...	Italian, ...	Miner, ...	18	S.	....	....	Morrisdale No. 3,	Clearfield, ...	Body crushed under fall of roof slate. He was undercutting coal in heading pillar work, when an oval piece of slate fell between the props and coal face.
Oct. 2	Joseph Tote, ...	Hungarian, .	Miner, ...	50	M.	1	1	Lehigh Valley No. 23.	Centre,..........	Body crushed under fall of coal at face of room. He had fired two blasts and was undermining when he cut into the powder slip.
Nov. 11	Charles Miller, ...	Swedish,...	Miner, ...	43	M.	1	6	Winburne No. 46	Clearfield, ...	Fatally injured by being caught under fall of bony coal while loading mine car in pillar work. A heavy squeeze on the place caused the edge of the bony to become liberated.

TABLE 5.—Non-Fatal Accidents Inside and Outside of Mines

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Name of Mine	County	Nature and Cause of Accident in Brief
Jan. 6	Joseph Sinfelt, ...	German, ...	Miner, ...	55	M.	Ghem, ...	Clearfield, ...	Arm fractured by fall of slate. He noticed some loose roof above the end of his mine car and was in the act of removing the brake and car to take it down when it fell.
20	William Griffiths, ...	Welsh, ...	Motorman, ...	46	M.	Morrisdale No. 1, ...	Clearfield, ...	Hand amputated in gear wheels of locomotive. His trolley pole had left the wire and he was on a grade trying to adjust it, when his hand slipped into the gear wheels.
	Andrew Brolin, ...	Swedish, ...	Miner, ...	38	M.	Winburne No. 45, ...	Clearfield, ...	Small bone of foot fractured by fall of bone coal off the corner of room pillar that he was taking out.
21	Fred Lapenski, ...	Polish, ...	Miner, ...	38	M.	Ogle No. 6, ...	Clearfield, ...	Thigh and ankle fractured and spine injured by fall of bone coal while taking loose coal off the side of pillar.
Feb. 4	Herrman Peters, ...	American, ..	Miner, ...	40	M.	Anna S, ...	Tioga, ...	Collar bone fractured by fall of roof slate and bony coal while undermining coal in pillar work. There was a slight squeeze on the place.
5	Peter Simmonds, ...	Slavonian, ..	Miner, ...	46	M.	Acme No. 2, ...	Clearfield, ...	Ribs fractured and body bruised by fall of bony coal while undermining. He cut into a face slip, liberating coal and bony.
18	Louis Japlin, ...	Hebrew, ...	Dumper, ...	35	M.	Ghem, ...	Clearfield, ...	Leg fractured by falling off the tipple. He was ordered to catch a car that was on a grade and he missed his hold and fell. Outside.
March 10	Joseph Potrebofski, .	Polish, ...	Miner, ...	38	M.	Jones, ...	Tioga, ...	Contusion under right eye and nose fractured by fall of slate. He had fired a blast and retreated only 10 feet, when the loose roof fell.
April 21	Peter J. Moffet, ...	American, ..	Miner, ...	25	M.	Arnot No. 2, ...	Tioga, ...	Pelvic bone fractured by fall of slate. There were two slips visible above him where he was working and the stone fell out from between them.

TABLE 5—Continued

Date of accident		Name of Person	Nationality	Occupation	Age	Married or single	Name of Mine	County	Nature and Cause of Accident in Brief
April	23	George Lofendofski, ..	Polish,......	Miner, ...	62	M.	Jones, ...	Tioga,...........	Collar bone fractured by fall of bony coal. He tried to pull it down, but failed, and then began to mine under it.
May	6	John Berish, ...	Slavonian,..	Miner, ...	20	S.	Colorado No. 5, ...	Clearfield, ...	Ankle fractured while riding between two loaded mine cars. He was dropping them down to the electric haulage when the front car left the track.
	26	Fred Cassick, ...	German, ...	Miner, ...	22	S.	Ogle No. 9, ...	Clearfield, ...	Small bone in shoulder fractured while riding in an empty car, electric haulage. The car left the track, displacing a cross bar, which struck him.
June	17	Joseph Mokovitch, ..	Austrian, ..	Miner, ...	36	M.	Maple Hill, ...	Tioga,...........	Contusion of face and neck.
		Joseph Bean, ...	Austrian, ..	Miner, ...	39	M.			Laceration and contusion of face and neck. They fired two blasts and then retreated to a place of safety. Supposing the blasts had gone off they returned in time to receive the whole charge of the shot in their faces.
	27	Thomas Griffiths, ...	English, ...	Company man, ..	44	M.	Morrisdale No. 3, ...	Clearfield, ...	Ankle fractured by cars at bottom of shaft. While placing an empty car back on the track another car came against it and he was caught between the bumpers.
Aug.	29	Clyde Quick, ...	American, ..	Driver, ...	29	M.	Snow Shoe No. 5, ...	Centre,..........	Compound fracture of left wrist. The mule pulled the car over that he was riding on and he was thrown on his hands. Outside.
Sept.	2	O. S. Womer, ...	American, ..	Mine foreman, ..	49	M.	Bloomington S No. 7,	Centre,..........	Compound fracture of left leg between side of heading and loaded mine car. The cars ran away from the driver on a heavy grade and jumped the track beside the foreman.
	3	Victor Mincarh, ...	Polish,......	Miner, ...	17	S.	Moshannon No. 10, ...	Centre,..........	Small bone in ankle fractured by rolling coal. He was breaking a large piece when part of it rolled against his foot.

Sept.	19	Orie Wade, ...	English, ...	Miner, ...	24	M.	Red Jacket No. 1, ...	Centre,..........	Spine injured and back bruised by fall of shale and mud roof. He was working in a narrow place where fore-poling was often necessary.
	26	Thomas Brown, ...	American, ..	Driver, ...	19	S.	Moshannon No. 10, ...	Centre,..........	Foot amputated by electric locomotive. He fell asleep along the side track and the motor ran over his foot.
Oct.	7	Orvis Harkless, ...	American, ..	Driver, ...	17	S.	Guion, ·	Clearfield, ...	Slight fracture of shoulder. While riding on front end of loaded mine car coming out of a cross-heading, he was caught between top of car and roof.
Nov.	7	Henry Mills, ...	American, ..	Miner, ...	41	M.	Bloomington S No. 14,	Centre,..........	Hands, face and body severely burned by ignition of can of powder. He had made a cartridge for a blast and in some manner the lamp on his head came in contact with the powder.
	12	Alex Pastor, ...	Hungarian, .	Miner, ...	18	S.	Ogle No. 9, ...	Clearfield, ...	Collar bone and rib fractured by fall of bone coal. It was a loose piece along the edge which they rip to make height on the roadway of the room.
Dec.	8	John Poposick, ...	Slavonian,..	Miner, ...	24	S.	Bloomington S No. 9,	Centre,..........	Spine injured and scalp and eyebrow lacerated by fall of slate at room face while undermining coal. The roof had visible fractures and the props were 8 feet back when stone fell.
	9	John Niusick, ...	Slavonian,..	Miner, ...	45	M.	Tunnell No. 6, ...	Centre,..........	Thigh fractured by fall of slate. There was one visible slip above him and he was brushing coal off the face, when he cut to the next one.
	10	John Walkes, ...	American, ..	Miner, ...	20	S.	Tunnell No. 6, ...	Centre,..........	Both legs fractured by fall of slate. He was brushing bony coal to make a new draw road to the air course.
	12	Mike Boran, ...	Slavonian,..	Machine scraper,	50	M.	Winburne No. 46, ...	Clearfield, ...	Small bone in foot fractured by mining machine. He was riding on top of the machine down the heading on a grade, and was using a hand sprag. He fell off the machine and the chain caught his foot.
	22	Andrew Bogus, ...	Slavonian,..	Miner, ...	35	M.	Moravian, ...	Clearfield, ...	Head and shoulders lacerated and bruised by fall of coal. He was undercutting coal when a V-shaped piece came off at a slip.
	24	John Morris, ...	English, ...	Miner, ...	47	M.	Acme No. 2, ...	Clearfield, ...	Ankle fractured and back bruised by fall of coal. He was taking a slab off a room pillar to relay the road, and in passing a point where the coal was fractured, he cut into a slip above him.
	30	Andrew Urish, ...	Slavonian,..	Miner, ...	31	M.	Lehigh Valley No. 10,	Centre,..........	Deep cut behind right ear. Struck by flying coal from a blast. He did not retreat to a safe disance from the blast.

CONDITION OF MINES

MORRISDALE COAL COMPANY

Morrisdale No. 1.—Drainage in fair condition. Ventilation was weak in places, but they expect that the booster fan they are installing in No. 3 shaft mine will improve the ventilation of this mine.

Morrisdale No. 2.—Ventilation and drainage good. At this time the mine is indefinitely shut down.

Morrisdale No. 3.—Ventilation was not sufficient, but they are sinking a shaft from the C seam to the B seam for the booster fan mentioned in connection with No. 1 mine.

Morrisdale No. 4.—This mine has a shallow cover and daylight can be seen in numerous places. It was always well ventilated. Drainage was in very fair condition in dry weather.

MORRIS RUN COAL MINING COMPANY

Jones—Ventilation in fair condition. One of the fans was destroyed by fire of unknown origin. They immediately gave orders for a new fan, but the manufacturers have been slow in fulfilling their contract. Drainage good.

Jones No. 8.—This is practically a new mine. They have installed a 7-foot fan, which is giving good results at the present time. Drainage good.

Lake—This mine was idle on my last visits. It has been indefinitely shut down owing to the excessive cost of producing the coal. Ventilation and drainage were in fair condition when the mine was in operation.

PEALE, PEACOCK AND KERR, INCORPORATED

Ogle No. 1.—Ventilation was generally good; local defects were found in retreating in old sections. Drainage good.

Ogle No. 6.—Ventilation and drainage in good condition.

Ogle No. 9.—Ventilation had local defects, but generally was in good condition. Drainage good.

Decatur No. 3.—Ventilation in very good condition. At times the drainage was defective.

Decatur No. 8.—Ventilation was in fair condition. Owing to light cover over the coal seam, numerous breaks cause defects in drainage from surface water during rainy seasons.

CLEARFIELD BITUMINOUS COAL CORPORATION

Grass Flat Nos. 9 and 10.—Ventilation and drainage in good condition.

Knox Run—Ventilation in good condition. Local defects in drainage.

Pleasant Hill—Ventilation and drainage in good condition.

LEHIGH VALLEY COAL COMPANY

Lehigh Valley No. 9.—Ventilation in two drifts was good, but it was defective in a third one that had been opened. Drainage depends on dry or wet weather, being along a crop line taking out coal.

Lehigh Valley No. 10.—Ventilation in very fair condition. Local defects in drainage.

Lehigh Valley No. 12.—Ventilation in fair condition. Local defects in drainage.

Lehigh Valley No. 13.—This mine is on the retreat and will soon be abandoned. Ventilation and drainage defective.

Lehigh Valley No. 18.—Ventilation and drainage in good condition.

Lehigh Valley No. 20.—Ventilation and drainage in good condition.

Lehigh Valley Nos. 22 and 23.—The present method of ventilation, while being fair, is near its limit of usefulness, the distance from the furnace and the surface breaks rendering it ineffective. Drainage good.

MOSHANNON COAL MINING COMPANY

Electric—Ventilation fair. Drainage good.

Moshannon No. 10.—Ventilation and drainage in good condition.

Moshannon No. 11.—Ventilation fair. Drainage good.

BLOSSBURG COAL COMPANY

Arnot No. 1.—The furnace of this mine is small for the requirements, but the ventilation has been in fair condition for the number of men employed. Drainage good.

Arnot No. 2.—Ventilation in very fair condition. Drainage had local defects in the old drift.

Arnot No. 5.—Ventilation in good condition. Local defects in drainage.

Arnot No. 7.—Ventilation and drainage in fair condition.

Maple Hill—Ventilation, which is provided by a furnace, was not sufficient at all times, especially in spring and fall weather. Drainage good.

Bear Run—Ventilation and drainage in good condition.

PENNSYLVANIA COAL AND COKE CORPORATION

Winburne No. 45.—Ventilation and drainage in very fair condition.

Winburne No. 46.—Ventilation and drainage in good condition.

Winburne No. 47.—Ventilation and drainage in very good condition.

FALL BROOK COAL COMPANY

Anna S.—Ventilation was good, except at the face of several places. Local defects in drainage.

KELLEY BROTHERS COAL COMPANY

Cherry Run No. 3.—Ventilation was in good condition, except in left section at face of one heading. Drainage fair.

Snow Shoe No. 5.—Ventilation and drainage in good condition.

Tunnell No. 6.—Ventilation in very fair condition. Drainage had local defects on main heading.

Myers Run—Ventilation in good condition for the number of men employed. Drainage very fair.

Karthus—Ventilation and drainage in good condition.

ASHMAN COAL COMPANY

Ghem—Ventilation was good in one section, but not up to the requirements in another section. Drainage had numerous defects.

Ashman No. 3.—Ventilation in good condition. Drainage depends on dry or wet weather. The mine has been abandoned.

VICTORIA COAL MINING COMPANY

Acme No. 2.—Ventilation and drainage in very fair condition. The mine has been flooded with water the greater part of the year.

Acme No. 6.—Ventilation and drainage in very fair condition.

GOSHEN COAL COMPANY

Goshen—During the summer the air stack burned down while they were trying to provide sufficient quantity of air to properly ventilate the mine. They have rebuilt it, but I am informed they will install a fan for ventilation, which is now on the way. Drainage in very fair condition.

J. EDWARD HORN AND COMPANY

Bloomington S No. 7.—Ventilation generally was very fair. Drainage good.

Bloomington S No. 9.—Ventilation was defective at faces, owing to concrete stoppings being behind, but they are putting them in shape again, which will no doubt restore the ventilation. Drainage in very fair condition.

OSCEOLA COAL COMPANY

Leader Nos. 3 and 5.—Ventilation in very fair condition. Drainage had local defects.

Leader No. 4.—Ventilation in very fair condition. Drainage had local defects.

IRISH BROTHERS COAL COMPANY

Colorado No. 5.—Ventilation and drainage in very fair condition.

ATHERTON-BARNES COMPANY

Bloomington S No. 14.—Ventilation and drainage in good condition.

GUION COAL COMPANY

Guion—Ventilation was not up to the faces in accordance with the requirements of the mining law. This condition has no doubt been remedied by this time. Drainage in very fair condition.

KATO COAL COMPANY

Kato—Ventilation and drainage in good condition.

THOMAS J. LEE

Chester—Ventilation was not sufficient at faces, and on my last inspection I ordered that more ventilation be provided. Drainage fair.

F. J. DUNHAM AND COMPANY

Royal No. 2.—Ventilation and drainage in fair condition.

E. J. GOODYEAR AND SONS

Goodyear No. 1.—Ventilation and drainage in good condition.

ATHERTON AND BARNES

Troy—There are several openings, some of which have broken strata to the surface. The ventilation, while not up to the standard required by law, was in healthy condition. Drainage depends on wet or dry seasons.

GHEM COAL COMPANY

Ghem—Ventilation and drainage in very fair condition. They are on the retreat in the left section, and surface rains may affect the drainage in the spring.

O'DONNELL BROTHERS

O'Donnell—This mine is on the retreat. Ventilation good. Drainage fair.

LANE COAL COMPANY, INCORPORATED

Lane No. 5.—Ventilation and drainage in fair condition. They are breaking to the surface with each pillar fall and daylight can be seen, the employes often going out and in by the openings thus made.

JAMES F. STOTT

Red Jacket No. 1.—Ventilation was not sufficient on the last inspection, being subject to surface breaks continually. Drainage fair.

CUBA COAL COMPANY

Colorado Nos. 3 and 4.—Ventilation and drainage good.

Jefferson No. 1.—In very fair condition as to ventilation and drainage.

Gearhart Nos. 1 and 2.—Ventilation in good condition. Drainage had local defects.

JENKIN BROTHERS

Jenkin Brothers—This mine is divided into two sections. Ventilation was in very fair condition. Drainage good.

SCOOTAC MINING COMPANY

Scootac—Ventilation was not sufficient at face of workings, and they intend to put down a shallow shaft and build a new furnace to bring the ventilation up to the faces. The old furnace was in connection with old workings from a clay mine which is the manway for this mine. Drainage had local defects.

RALSTON COAL COMPANY

Red Run—This operation has three drifts and two fans, providing ample ventilation at all times. Drainage good.

GRACE COAL MINING COMPANY

Grace No. 1.—This is a new operation. It is ventilated by a furnace of small capacity. Ventilation and drainage in fair condition.

DUNBAR COAL MINING COMPANY

Fairmont No. 2.—The ventilation was defective in the early part of the year, but they have built a furnace and made other inlet openings near the working faces, so that at this time it is in good condition. Drainage was defective during rainy seasons.

BLAIR BROTHERS COAL COMPANY

Orient Nos. 4 and 5.—Ventilation and drainage in good condition.

POTTER-BIGLER AND POTTER, INCORPORATED

Horse Shoe—There were so few men employed that a small volume of air kept it in good condition. Drainage was in fair condition.

Mt. Carmel—Ventilation in fair condition. Drainage had local defects.

WHITE-DUGAN COAL COMPANY

Columbia No. 1.—They have opened a new slope to reach the face with mechanical haulage, which also will improve the ventilation. Ventilation in very fair condition. Drainage good.

WOODLAND CANNEL COAL COMPANY

Cannel Crest—Ventilation in good condition. Drainage had local defects.

COALDALE MINING COMPANY

Coaldale No. 12.—Ventilation was defective during the early part of the year. I complained to the superintendent of the foreman's failure to properly conduct it, and it is now in better condition. Drainage was in good condition, owing to the heavy grades.

NOWAK COAL COMPANY

Jenkins—I had to enter suits to get this company to realize the necessity for good ventilation and other conditions as required by law, but the ventilation has been improved. Drainage was always in very fair condition.

MORAVIAN COAL COMPANY

Moravian—Ventilation and drainage in very fair condition.

HEATH BROTHERS

Retort—Ventilation and drainage in good condition.

A. B. LANSBERY

Lansbery—This is a cannel coal mine, and all coal is mined practically without any blasting. Ventilation and drainage in good condition.

W. F. HOLT

Phoenix—Ventilation was in very fair condition. They had to open a new way for drainage, which was in fair condition.

WILLIAM J. DAVIS

Davis No. 2.—This operation will soon have as many openings as miners. They are working along a long crop line to take out coal left by two former operators, and the mine is no sooner in than a gob fall is encountered. Ventilation fair. Drainage poor.

WILLIAM FRAZIER

Frazier—Ventilation was not sufficient at faces. While there may be a fair volume of air, such heavy blasts are necessary to bring down the coal that smoke is a proposition to be reckoned with. Drainage in fair condition.

OSCEOLA COAL MINING COMPANY

Penn No. 7.—This mine has worked with a small force during the year. Ventilation and drainage in good condition.

EDWARD HARRIS AND SONS

Lane No. 1.—This operation has been on the crop line for several years, and the roadways are along side of old gob falls on one side of the roadway, so that ventilation is natural. Drainage is also natural, because there is no space to make any arrangements for it.

JOHN BARNES AND SONS

Lancashire No. 2.—Ventilation was in very fair condition when the outside atmosphere was suitable for the furnace. Drainage was poor in rainy weather.

RED JACKET COAL COMPANY

Red Jacket No. 2.—Ventilation was in very fair condition. Drainage had local defects.

BLOSSBURG AND COAL RUN COAL COMPANY

Coal Run Nos. 4 and 5.—Ventilation and drainage in very fair condition.

JONES HILL COAL COMPANY

Jones Hill—This is an old mine reopened. They are having difficulty in reaching the solid coal that is supposed to have been left. The ventilation was in very fair condition. The drainage was also fair. The roadways were driven years ago when the method of operation was by the smallest car and an equally narrow road, so that it will take some time to develop the mine into a permanent proposition..

ROCK RUN COAL COMPANY

Rock Run—This is a new operation in a large territory, but they have not yet found the most available point for permanent openings. The ventilation and drainage were in very fair condition. The sand rock comes right out to the crop line, so that no cross bars had to be used to make the present opening.

IMPROVEMENTS

MORRISDALE COAL COMPANY

Morrisdale No. 1.—They are opening a new operation called the Cunard Slope, which will connect with the interior workings of this mine and cause the inlet ventilation to reach the faces of the workings.

Morrisdale No. 2.—A connection has been made direct with Morrisdale No. 3 mine for ventilation and travel; at present this opening is indefinitely shut down.

Morrisdale No. 3.—They are sinking a shaft from the C or Middle Kittanning seam to the B or Lower Kittanning seam, to place a 10-foot booster fan to improve the ventilation.

MORRIS RUN COAL MINING COMPANY

Jones—They have opened a new drift and placed at the manway entrance a 4-foot Stine fan. A 7-foot Stine fan has also been placed at shaft on one of the upper seams, which they are now mining. One of the 20-foot fans was destroyed by fire and a 12-foot Stine fan has been installed to take its place.

PEALE, PEACOCK AND KERR, INCORPORATED

Decatur No. 8.—A new drift has been opened to avoid a long inside haul.

CLEARFIELD BITUMINOUS COAL CORPORATION

Grass Flat Nos. 9 and 10.—Electric haulage has been installed in the interior workings, but coal is still hauled to the outside with the rope system. Coal is now mined by electric machinery.

Pleasant Hill—Two electric mining machines have been installed; also two 7-foot Stine fans, one for each drift, doing away with two furnaces.

LEHIGH VALLEY COAL COMPANY

Lehigh Valley No. 9.—Two new drifts have been opened to replace those abandoned, because of the crop line coal now being taken out.

Lehigh Valley No. 12.—Two new openings have been made to replace those abandoned along the crop line of the seam of coal.

Lehigh Valley No. 13.—This opening will soon be abandoned. A new drift is being opened which will require a new tipple.

MOSHANNON COAL MINING COMPANY

Moshannon No. 10.—A rock tunnel has been driven to shorten the haulage. Erected a new tipple of 1,000 tons capacity, and remodeled the outside entirely with a power plant to generate its own electric power, and have made arrangements to use power from the Philipsburg power plant by the use of switches. This is an up-to-date operation.

Moshannon No. 11.—Electric haulage and electric mining machinery have been installed to replace rope haulage and pick mining. A new timbered drift was opened with more space.

KELLEY BROTHERS COAL COMPANY

Cherry Run No. 3.—They installed gasoline motor haulage to replace mule haulage. On my last visit, however, it seemed to be giving them some trouble, and they were repairing the motor and trying to buy more mules to install mule haulage again.

Snow Shoe No. 5.—A new drift has been opened into another piece of coal for use when the drift now in use has been abandoned.

Karthus—A new drift has been opened with a view of drainage for a central basin, which was always flooded with water, but the drift levels are still above water in part of the mine.

ASHMAN COAL COMPANY

Ghem—A new drift has been opened to get away from former openings, to improve ventilation, drainage and travel. This is a hard proposition, as it is a drainage for coal workings adjoining it.

GOSHEN COAL COMPANY

Goshen—Arrangements are being made to install electric haulage, and also a new fan for ventilation.

J. EDWARD HORN AND COMPANY

Bloomington S No. 7.—A new drift has been opened to improve haulage by getting away from heavy inside grades, and also to make available manway and improve the ventilation. Electric haulage with rope from a stationary engine outside has been installed, but was not yet in operation on my last visit.

Bloomington S No. 9.—A new drift has been opened to improve haulage by getting away from heavy inside grades.

GUION COAL COMPANY

Guion—They have installed a transformer to use electric mining machines instead of compressed air, which will in the future be used exclusively for pumping.

KATO COAL COMPANY

Kato—This was a new operation last year. Improvements are still being made. Trestles are being filled in, grades improved and general outside improvements made. A town has sprung up, with suitable houses for the workmen, and a good substantial store has been built, which was greatly needed.

E. J. GOODYEAR AND SONS

Goodyear No. 1.—They have opened a shallow shaft, and placed a 7-foot Stine fan at the top for ventilation. The fan is run by power from electric trolley line.

ATHERTON AND BARNES

Troy—They have opened two new drifts to increase the output.

DUNBAR COAL MINING OMPANY

Fairmont No. 2.—Two new drifts have been opened on the E or Upper Freeport seam of coal, the D or Moshannon seam being nearly exhausted.

WHITE-DUGAN COAL COMPANY

Columbia No. 1.—A substantial new slope opening has been made. Installed stationary electric motor with rope haulage for taking out the coal at a point nearer the tipple. The old drift is used for manway and pumping.

WOODLAND CANNEL COAL COMPANY

Cannel Crest—Two furnaces of large capacity have been built.

W. F. HOLT

Phoenix—A new drift has been opened to recover a piece of D or Moshannon seam of coal left by other operators, but on my last visit it was flooded with water. I presume it will be allowed to drain off into mines working the B or Lower Kittanning seam below this operation.

W. J. DAVIS

Davis No. 2.—This operation is along the crop line of coal that was abandoned years ago. On nearly every visit I found a new opening had been made, with the result that they soon cut into the caved-in operations of former years.

PROSECUTIONS FOR VIOLATION OF THE MINING LAWS

October 2, Charles Nowak, John Nowak, Frank Bubacz and Adam Gruzlewski, operators of Jenkins mine in Blossburg. Charge: Having more than ten persons employed inside, and also failing to provide certificated mine foreman, proper ventilation, sufficient side space, shelter holes, and map of the mine. October 30 they plead guilty and were sentenced to pay a fine of $5.00 and the costs.

October 13, Sherd Smeal, operator of Smeal mine in West Decatur. Charge: Having more than ten persons employed inside and having no certificated mine foreman in charge, and also neglecting to provide shelter holes, side space, manway, proper volume of air, and mine supplies. October 14, he plead guilty and was sentenced to pay a fine of $5.00 and all the costs.

December 11, Mathew Horn, miner, Bloomington S. No. 9 of J. Edward Horn and Company. Charge: Handling powder carelessly with an open light on his head. December 17, he plead guilty and was sentenced to pay a fine of $5.00 and all the costs.

December 16, Stephen Lushok, miner, Bloomington S No. 9, of J. Edward Horn and Company. Charge: Neglecting to take down loose bony coal before commencing to undermine coal. December 17, he plead guilty and was sentenced to pay a fine of $5.00 and all the costs.

December 16, Martin Lazar, miner, Bloomington S No. 9 mine, of J. Edward Horn and Company. Charge: Carelessly handling explosives with a lamp on his head. December 17, he plead guilty and was sentenced to pay a fine of $5.00 and all the costs.

December 16, J. R. Juranile, miner, Bloomington S No. 9 mine, of J. Edward Horn and Company. Charge: Neglecting to properly sprag his coal while undermining. December 17, he plead guilty and was sentenced to pay a fine of $5.00 and all the costs.

December 16, Andy Malinie, miner, Bloomington S No. 9 mine, of J. Edward Horn and Company. Charge: Neglecting to properly set sprags under the coal while undermining. December 17, he plead guilty and was sentenced to pay a fine of $5.00 and all the costs.

December 17, Mike Pollock, miner, Acme No. 2 slope, of Victoria Coal Mining Company. Charge: Neglecting to properly secure bony coal above while top-mining. December 18, he plead guilty and was sentenced to pay a fine of $5.00 and all the costs.

December 17, Pete Simmons, miner, Acme No. 2 slope, of Victoria Coal Mining Company. Charge: Neglecting to secure loose bony above him while top-mining coal. December 18, he plead guilty and was sentenced to pay a fine of $5.00 and all the costs.

December 17, Mike Duritze, miner, Acme No. 2 mine, of Victoria Coal Mining Company. Charge: Top-mining coal and neglecting to properly secure the bony coal above him. December 18, he plead guilty and was sentenced to pay a fine of $5.00 and all the costs.

MINE FOREMEN'S, ASSISTANT MINE FOREMEN'S AND FIRE BOSSES' EXAMINATIONS

The annual examination of applicants for certificates of qualification as mine foremen, assistant mine foremen, and fire bosses was held in Morrisdale Public School Building, May 6, 7 and 8. The Board of Examiners was composed of Joseph Knapper, Inspector; Malcolm McDougall, Superintendent; and Charles B. Maxwell, Mine Foreman.

There were 2 applicants for certificates of qualification as mine foremen, first grade, 17 applicants for certificates of qualification as mine foremen, second grade, and 2 applicants for certificates of qualification as fire bosses. The following persons passed a satisfactory examination and were granted certificates:

MINE FOREMEN

First Grade

William G. Knapper, Snow Shoe; Lewis Hohnke, Allport.

Second Grade

Thomas Crooks, Blossburg; Wilbur H. Holt, Albin Linberg, Allport.

FIRE BOSSES

William G. Knapper, Snow Shoe; Lewis Hohnke, Allport.

◆

NINTH DISTRICT

FAYETTE AND WESTMORELAND COUNTIES

Connellsville, Pa., February 18, 1914.

Hon. James E. Roderick, Chief of Department of Mines:

Sir: I have the honor to transmit herewith my report as Inspector of Mines of the Ninth Bituminous District for the year ending December 31, 1913.

The report includes the statistical tables, a statement of the most important improvements made in and about the mines, a brief account of the prosecutions for violation of the mining laws and the result of the annual examination of candidates for certificates of qualification as mine foremen, assistant mine foremen and fire bosses.

Respectfully submitted,

P. J. WALSH, Inspector.

SUMMARY OF STATISTICS

Number of mines,	45
Number of mines in operation,	42
Number of tons of coal shipped to market,	2,071,141
Number of tons used at mines for steam and heat,	179,995
Number of tons sold to local trade and used by employes,	137,666
Number of tons used in the manufacture of coke,	5,830,698
Number of tons of coal produced,	8,219,500
Number of tons of coke produced,	3,818,534
Number of coke ovens,	8,252
Number of coke ovens in operation,	5,989
Number of tons of coal produced by pick mining,	5,859,257
Number of tons produced by compressed air machines,	354,944
Number of tons produced by electrical machines,	2,005,299
Number of persons employed inside of mines,	5,116
Number of persons employed outside, including coke workers,	2,770
Number of persons employed at manufacture of coke,	1,448
Number of fatal accidents inside of mines,	19
Number of fatal accidents outside,	1
Number of non-fatal accidents inside of mines,	45
Number of non-fatal accidents outside,	2
Number of tons of coal produced per fatal accident inside,	432,605
Number of tons produced per fatal accident outside,	8,219,500
Number of tons produced per fatal accident inside and outside,	410,975
Number of persons employed per fatal accident inside,	269
Number of persons employed per fatal accident outside,	2,770
Number of persons employed per fatal accident inside and outside,	394
Number of persons employed per non-fatal accident inside,	114
Number of persons employed per non-fatal accident outside,	1,385
Number of persons employed per non-fatal accident inside and outside,	168
Number of wives made widows,	11
Number of children made orphans,	23
Number of steam locomotives used inside of mines,	....
Number of steam locomotives used outside,	24
Number of compressed air locomotives used inside,	11
Number of compressed air locomotives used outside,	....
Number of electric motors used inside,	49
Number of electric motors used outside,	....
Number of gasoline locomotives used inside,	....
Number of fans in use,	46
Number of furnaces in use,	3
Number of gaseous mines in operation,	18
Number of non-gaseous mines in operation,	24
Number of new mines opened,	1
Number of old mines abandoned,	....

TABLE A

PRODUCTION OF COAL

Names of Operators	Tons
H. C. Frick Coke Company,	4,602,182
W. J. Rainey,	945,909
Westmoreland Coal Company,	744,305
Youghiogheny and Ohio Coal Company,	728,087
Pittsburgh and Erie Coal Company,	340,315
Whyel Coke Company,	228,181
Mount Hope Coke Company,	139,989
Brown and Cochran,	113,418
Sunshine Coal and Coke Company,	111,466
Dunbar Furnace Company, William Selfridge, Trustee in Bankruptcy,	88,178
Genuine Connellsville Coke Company,	43,642
Brownfield Connellsville Coke Company,	31,330
Mahoning Coke Company,	29,449
Keystone Coal and Coke Company,	23,174
Franklin Coke Company,	21,928
Peerless Connellsville Coke Company,	16,750
Cochran Brothers,	11,197
Total,	8,219,500

Production by Counties

Fayette,	5,256,507
Westmoreland,	2,962,993
Total,	8,219,500

TABLE B.—Fatal and non-fatal accidents inside and outside of mines; number of tons of coal produced per accident; number of persons employed; number employed per accident

Names of Operators	Fatal Accidents			Non-Fatal Accidents			Tons of coal produced per fatal accident inside	Tons of coal produced per non-fatal accident inside	Number of employes inside	Number of employes outside	Total number of employes	Number of employes inside per fatal accident	Number of employes outside per fatal accident	Number of employes inside per non-fatal accident	Number of employes outside per non-fatal accident
	Inside	Outside	Total	Inside	Outside	Total									
H. C. Frick Coke Co.,	9	......	9	13	1	14	511,354	354,014	2,486	1,808	4,294	276	....	191	1,808
W. J. Rainey,	1	1	2	5	......	5	945,909	189,182	576	460	1,086	576	460	115	....
Westmoreland Coal Co.,	4	......	4	1	......	1	186,076	744,305	532	53	585	133	....	532	....
Youghiogheny and Ohio Coal Co.,	3	......	3	17	1	18	242,696	42,829	573	90	663	191	....	34	90
Pittsburgh and Erie Coal Co.,	2	......	2	......	......	......	170,158	....	255	27	282	128	....	....	....
Whyel Coke Co.,	......	......	......	4	......	4	....	57,045	160	34	194	....	....	40	....
Mount Hope Coke Co.,	......	......	......	3	......	3	....	46,663	96	24	120	....	....	32	....
Brown and Cochran,	......	......	......	1	......	1	....	113,418	75	82	157	....	....	75	....
Sunshine Coal and Coke Co.,	......	......	......	1	......	1	....	111,466	83	77	160	....	....	83	....
Miscellaneous Companies,	......	......	......	......	......	......	....	....	280	115	395	....	....	....	....
Totals and averages for district,	19	1	20	45	2	47	432,605	182,656	5,116	2,770	7,886	269	2,770	114	1,385

TABLE C.—Classification of Fatal Accidents Inside and Outside of Mines

	Months													
	January	February	March	April	May	June	July	August	September	October	November	December	Totals	Percentages
Causes of Accidents Inside														
Falls of slate, ...	....	....	1	....	....	1	1	....	....	....	1	....	4	21.06
Falls of roof, ...	....	4	....	1	....	....	....	....	....	....	....	....	5	26.32
Mine cars, ...	1	1	1	....	1	....	1	1	....	....	....	....	6	31.58
Blasts, premature and otherwise, ...	1	....	....	....	....	....	....	....	....	....	....	....	1	5.26
Falling into shafts, ..	....	....	....	....	....	....	....	1	....	....	....	....	1	5.26
Injured by cage, ...	....	....	....	1	....	....	....	....	....	....	....	....	1	5.26
Struck by post, ...	....	....	....	....	....	....	....	....	1	....	....	....	1	5.26
Totals, ...	2	5	2	2	1	1	2	2	1	....	1	....	19	100.00
Causes of Accidents Outside														
Cars, ...	....	....	....	....	....	....	1	....	....	....	....	....	1	100.00
Totals, ...	....	....	....	....	....	....	1	....	....	....	....	....	1	100.00
Grand totals inside and outside, ...	2	5	2	2	1	1	3	2	1	....	1	....	20	......

TABLE D.—Classification of Non-Fatal Accidents Inside and Outside of Mines

	Months													
	January	February	March	April	May	June	July	August	September	October	November	December	Totals	Percentages
Causes of Accidents Inside														
Falls of coal, ...	....	....	....	....	1	....	1	....	....	....	1	1	4	8.89
Falls of slate, ...	....	1	1	2	3	2	3	1	1	1	1	1	17	37.77
Falls of roof, ...	....	....	....	....	....	....	1	....	1	....	....	....	2	4.45
Mine cars, ...	1	2	1	4	2	3	2	1	1	....	....	....	17	37.77
Blasts, premature and otherwise, ...	....	....	....	....	....	....	2	....	....	....	....	....	2	4.45
By falling, ...	....	....	....	....	....	....	....	1	....	....	....	....	1	2.22
By bursting steam pipe, ...	....	....	....	....	....	....	....	....	....	....	1	....	1	2.22
By piece of concrete falling on him, ...	....	....	....	....	1	....	....	....	....	....	....	....	1	2.22
Totals, ...	1	3	2	6	7	5	9	3	3	1	3	2	45	100.00
Causes of Accidents Outside														
Cars, ...	....	....	1	....	....	....	....	....	....	....	....	....	1	50.00
Struck by piece of wood, ...	....	1	....	....	....	....	....	....	....	....	....	....	1	50.00
Totals, ...	....	1	1	....	....	....	....	....	....	....	....	....	2	100.00
Grand totals inside and outside, ...	1	4	3	6	7	5	9	3	3	1	3	2	47	......

TABLE E.—Occupations of Persons Killed or Fatally Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
Inside													
Miners,	....	2	1	2	....	....	....	....	1	....	....	....	6
Machine loaders,	1	....	....	....	....	1	1	....	....	....	1	....	4
Drivers and runners,	1	2	....	....	....	....	....	....	....	....	....	....	3
Doorboys and helpers,	....	....	....	....	....	....	1	....	....	....	....	....	1
Company men,	....	....	1	....	....	....	....	1	....	....	....	....	2
Rib bosses,	....	1	....	....	....	....	....	....	....	....	....	....	1
Motormen,	....	....	....	....	1	....	....	....	....	....	....	....	1
Switch tenders,	....	....	....	....	....	....	....	1	....	....	....	....	1
Totals,	2	5	2	2	1	1	2	2	1	....	1	....	19
Outside													
Company men,	....	....	....	....	....	....	1	....	....	....	....	....	1
Totals,	....	....	....	....	....	....	1	....	....	....	....	....	1
Grand totals inside and outside,	3	5	2	2	1	1	3	2	1	....	1	....	20

TABLE F.—Occupations of Persons Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
Inside													
Miners,	....	1	....	1	1	1	5	1	2	....	....	1	13
Machine runners,	....	....	....	....	1	....	....	....	....	....	....	....	1
Machine loaders,	....	....	....	....	2	....	2	1	1	....	2	....	8
Motormen,	1	....	1	....	....	....	....	....	....	....	....	....	2
Drivers and runners,	....	1	....	3	1	2	1	1	....	....	....	....	9
Company men,	....	....	1	2	1	2	1	....	....	1	1	1	10
Brakemen,	....	1	....	....	1	....	....	....	....	....	....	....	2
Totals,	1	3	2	6	7	5	9	3	3	1	3	2	45
Outside													
Blacksmiths and carpenters,	....	1	....	....	....	....	....	....	....	....	....	....	1
Tipplemen,	....	....	1	....	....	....	....	....	....	....	....	....	1
Totals,	....	1	1	....	....	....	....	....	....	....	....	....	2
Grand totals inside and outside,	1	4	3	6	7	5	9	3	3	1	3	2	47

TABLE G.—Nationality of Persons Killed or Fatally Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
American,	....	1	1	....	1	....	1	1	....	....	....	....	5
Irish,	....	1	....	....	....	....	....	....	....	....	....	....	1
German,	....	....	....	1	....	....	....	....	....	....	....	....	1
Polish,	....	1	1	....	....	....	....	....	....	....	....	....	2
Hungarian,	....	....	....	....	....	....	....	....	....	....	1	....	1
Italian,	1	1	....	....	....	....	1	1	....	....	....	....	4
Slavonian,	....	....	....	1	....	....	1	....	....	....	....	....	2
Russian,	....	1	....	....	....	....	....	....	....	....	....	....	1
Granadian,	1	....	....	....	....	....	....	....	1	....	....	....	2
Horwat,	....	....	....	....	....	1	....	....	....	....	....	....	1
Totals,	2	5	2	2	1	1	3	2	1	....	1	....	20

TABLE H.—Nationality of Persons Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
American,	1	2	1	2	1	1	2	1	....	....	1	....	12
English,	....	....	....	....	....	....	....	....	....	1	....	....	1
German,	....	....	1	....	....	....	....	....	....	....	....	....	1
Polish,	....	....	....	1	....	....	2	....	....	....	1	....	4
Hungarian,	....	1	....	1	2	....	....	....	....	....	....	....	4
Italian,	....	....	....	....	....	1	3	1	....	....	....	....	5
Slavonian,	....	1	1	2	1	3	....	....	1	....	1	....	10
Lithuanian,	....	....	....	....	....	....	....	....	1	....	....	....	1
Austrian,	....	....	....	....	2	....	1	....	1	....	....	1	5
Russian,	....	....	....	....	1	....	....	....	....	....	....	1	2
Magyar,	....	....	....	....	....	....	1	....	....	....	....	....	1
Croatian,	....	....	....	....	....	....	....	1	....	....	....	....	1
Totals,	1	4	3	6	7	5	9	3	3	1	3	2	47

TABLE I.—Operators and mines, kind of openings, type and size of fans, size of furnaces, volume of air produced by fan or furnace per minute, number of splits of air currents and number of persons employed inside

Names of Operators and Mines	Kind of opening	Gaseous or non-gaseous	Method of ventilation	Diameter of fan in feet and inches	Width of blades in feet and inches	Depth of blades in feet and inches	Number of revolutions per minute	Water gauge developed—in inches	Name of fan	Power used	Area of furnace bars in square feet	Number of splits of air currents	Number of cubic feet of air per minute entering the mine at inlet	Total number of cubic feet of air per minute circulating in all the splits	Number of cubic feet of air per minute passing out at outlet	Number of persons employed inside
H. C. Frick Coke Co.																
Adelaide,	Shaft,	Gaseous,	Fan,	20.0	6.4	4.0	80	2.0	Guibal,	Steam,	..	4	111,500	83,600	112,000	99
				20.0	6	5.6	65	1.4	Guibal,							
Alverton,	Slope,	Non-gas.,	Fan,	12.0	3.9	2.3	100	.5	Brazil,	Steam,	..	4	102,000	59,900	†80,000	116
				10.0	3.6	2.6	95	.3	Guibal,							
Bitner,	Drift,	Gaseous,	Fan,	20.0	3.8	3.0	100	.8	Guibal,	Steam,	..	2	61,000	83,600	†56,500	109
				20.0	8.8	8.0	75	.8	Guibal,							
Coal Brook,	Slope,	Gaseous,	Fan,	11.4	3.6	8.2	100	.3	Guibal,	Steam,	..	2	33,000	25,250	34,100	42
Colonial No. 1,	Slope,	Gaseous,	Fan,	16.0	7.0	4.0	140	2.9	Capell,	Steam,	..	5	101,000	62,110	105,700	207
Colonial No. 3,	Shaft,	Gaseous,	Fan,	16.0	8.0	4.0	90	1.6	Capell,	Electricity,	..	7	133,000	84,200	135,000	101
Colonial No. 4,	Shaft,	Gaseous,	Fan,	16.0	8.0	4.0	95	1.2	Guibal,	Steam,	..	5	120,000	77,380	127,000	135
Central,	Slope,	Non-gas.,	Fan,	18.0	6.6	5.0	95	1.6	Guibal,	Steam,	..	4	86,900	64,620	†51,300	152
Davidson,	Shaft,	Non-gas.,	Fan,	25.0	8.6	7.0	70	1.7	Guibal,	Steam,	..	4	114,400	65,000	115,000	162
Henry Clay,*	Slope,	Gaseous,	Fan,	12.0	3.8	3.0	......	......	Brazil,	Steam,	..	..	....	....	....	....
Juniata,	Shaft,	Gaseous,	Fan,	20.0	6.0	5.0	80	1.5	Guibal,	Steam,	..	2	64,700	46,800	66,000	158
Leisenring No. 1,	Shaft,	Gaseous,	Fan,	20.0	6.0	6.0	100	1.6	Guibal,	Steam,	..	8	140,000	99,600	142,200	200
Leisenring No. 3,	Shaft,	Gaseous,	Fan,	25.0	7.0	6.6	70	2.3	Capell,	Steam,	..	6	140,000	109,000	142,000	248
Rist,	Slope,	Non-gas.,	Fan,	16.0	4.2	4.6	80	.9	Guibal,	Steam,	..	2	66,000	46,400	†60,000	60
Southwest No. 1,	Shaft,	Non-gas.,	Fan,	25.0	7.10	6.0	60	1.4	Guibal,	Steam,	..	8	215,160	122,525	†178,000	248
Southwest No. 2,	Slope,	Non-gas.,	Fan,	20.0	6.0	5.0	50	.7	Guibal,	Steam,	..	3	79,000	40,100	80,000	58
Southwest No. 3,	Slope,	Non-gas.,	Fan,	12.0	3.6	3.0	90	.2	Guibal,	Steam,	..	4	74,720	63,500	80,000	83
				20.0	6.0	5.0	60	.6								
Trotter,	Shaft,	Gaseous,	Fan,	25.0	8.0	6.0	80	2.5	Guibal,	Steam,	..	7	152,760	105,300	156,000	290
Valley,	Drift,	Non-gas.,	Fan,	12.0	3.8	3.0	90	.2	Guibal,	Steam,	..	1	28,200	15,000	30,000	48
White,	Drift,	Non-gas.,	Fan,	12.0	3.8	3.0	90	.5	Guibal,	Steam,	..	3	41,600	30,000	†37,000	30

---

*Idle.

†Part of return air escapes through surface breaks to the outside.

W. J. Rainey																
Elm Grove,	Slope,	Gaseous,	Fan,	16.0	8.0	4.0	70	1.5	Guibal,	Steam,	..	2	60,000	45,000	62,000	101
Fort Hill,	Slope,	Gaseous,	Fan,	7.0	1.4	3.0	70	.5	Stine,	Steam,	..	4	85,400	67,000	88,200	84
				10.0	5.0	3.6	180	2.0	Lepley,							
Grace,	Slope,	Non-gas.,	Fan,	14.0	4.0	4.0	82	1.0	Guibal,	Steam,	..	1	55,000	40,000	57,000	55
Paul,	Slope,	Gaseous,	Fan,	20.0	8.0	7.0	70	1.0	Guibal,	Steam,	..	3	85,000	49,400	88,000	92
Royal,	Shaft,	Gaseous,	Fan,	30.0	8.0	6.0	45	1.3	Lepley,	Steam,	..	8	120,000	75,000	128,000	222
Union,	Drift,	Non-gas.,	Fan,	7.0	1.4	3.0	70	1.0	Stine,	Compressed air,	..	1	9,000	5,000	9,500	22
Westmoreland Coal Co.																
Magee,	Slope,	Gaseous,	Fan,	16.0	6.0	4.6	100	1.1	Scottdale,	Steam,	..	10	152,000	114,200	204,000	532
Youghiogheny and Ohio Coal Co.																
Osborne No. 1,	Slope,	Gaseous,	Fan,	25.0	8.0	8.2	52	1.2	Vulcan,	Steam,	..	5	108,000	75,900	113,000	274
Osborne No. 2,	Drift,	Non-gas.,	Fan,	25.0	8.0	8.2	60	1.2	Vulcan,	Steam,	..	6	116,000	94,300	118,000	299
Pittsburgh and Erie Coal Co.																
Sumner No. 1,*	Shaft,	Gaseous,	Fan,	16.0	6.6	4.6	112	1.6	Lepley,	Electricity,	..	4	107,400	58,500	108,000	255
Sumner No. 2,	Slope,	Gaseous,	Fan,													
Whyel Coke Co.																
Yukon,	Slope,	Non-gas.,	Fan,	15.0	3.6	3.0	75	.9	Brazil,	Electricity,	..	3	65,000	44,800	70,000	160
Mount Hope Coke Co.																
Mount Hope,	Drift,	Gaseous,	Fan,	16.0	6.0	4.0	72	.9	Lepley,	Electricity,	..	2	72,000	40,600	81,200	96
Brown and Cochran																
Nellie,	Drift,	Non-gas.,	Fan,	18.0	5.0	4.0	60	1.0	Capell,	Steam,	..	3	45,000	25,000	47,200	75
Sunshine Coal and Coke Co.																
Cyrilla No. 2,	Drift,	Non-gas.,	Fan,	8.0	7.0	3.0	100	.5	Robinson,	Electricity,	..	2	22,000	14,100	24,000	66
Sunshine No. 6,	Drift,	Non-gas.,	Furnace,	......	......	......	......	......	....	....	14	1	14,000	8,400	15,200	17
Dunbar Furnace Co. William Selfridge, Trustee in Bankruptcy																
Furnace No. 1,	Slope,	Non-gas.,	Fan,	9.0	7.0	4.0	150	1.6	Capell,	Steam,	..	1	65,000	22,000	68,000	62
				16.0	4.6	4.3	......	......	Guibal,							
Furnace No. 2,*	Drift,	Non-gas.,	Fan,	10.0	4.0	2.6	......	......	Guibal,	Electricity,	..	2	....	....	....	....
Genuine Connellsville Coke Co.																
Park Hill,	Drift,	Non-gas.,	Fan,	7.0	3.6	1.6	90	.2	Sturtevant,	Steam,	..	1	23,000	16,600	25,000	28
Brownfield Connellsville Coke Co.																
Myers,	Drift	Non-gas.,	Fan,	6.10	2.9	2.6	220	.3	American Blower,	Electricity,	..	1	22,600	14,400	24,000	40

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*Idle.

TABLE I.—Continued

Names of Operators and Mines	Kind of opening	Gaseous or non-gaseous	Method of ventilation	Diameter of fan in feet and inches	Width of blades in feet and inches	Depth of blades in feet and inches	Number of revolutions per minute	Water gauge developed—in inches	Name of fan	Power used	Area of furnace bars in square feet	Number of splits of air currents	Number of cubic feet of air per minute entering the mine at inlet	Total number of cubic feet of air per minute circulating in all the splits	Number of cubic feet of air per minute passing out at outlet	Number of persons employed inside
Mahoning Coke Co. Mahoning, ...	Slope, ...	Non-gas., .	Fan, ...	20.0	7.6	6.0	42	2.	Kenny, ...	Steam,......	..	1	50,000	31,000	†40,000	35
Keystone Coal and Coke Co. Greensburg No. 4, ...	Drift, ...	Non-gas., .	Fan, ...	6.0	3.0	1.2	170	.1	Capell, ...	Steam,......	..	1	16,000	11,000	17,500	59
Franklin Coke Co. Leon ,......................	Drift, ...	Non-gas., .	Furnace,..	......	......	......	......	......	....	....	24	1	7,000	5,600	8,700	17
Peerless Connellsville Coke Co. Carolyn, ...	Drift, ...	Non-gas., .	Furnace,..	......	......	......	......	......	....	....	24	1	9,000	6,700	10,200	20
Cochran Brothers Spring Grove, ...	Drift, ...	Non-gas., .	Natural, ..	......	......	......	......	......	....	....	..	1	7,000	6,500	7,200	19

†Part of return air escapes through surface breaks to the outside.

TABLE J.—Mines using coal cutting machines, power used, geological and local names of seams, thickest and thinnest seams where machines are used, and the approximate number of tons produced by machines

Names of Operators	Names of Mines	Kind of opening	Gaseous or non-gaseous	Number of mining machines used	Power used by machines	Geological and local names of seams	Average thickness in inches	Height of Seam in Inches		Approximate number of tons produced by machines
								Thickest	Thinnest	
H. C. Frick Coke Co.,	Colonial No. 1,	Slope,	Gaseous,	14	Electricity,	Pittsburgh,	90	96	84	221,446
	Colonial No. 3,	Shaft,	Gaseous,	1	Electricity,	Pittsburgh,	90	96	84	28,092
				5	Compressed air,					123,175
	Colonial No. 4,	Shaft,	Gaseous,	10	Electricity,	Pittsburgh,	90	96	84	197,213
	Juniata,	Shaft,	Gaseous,	1	Electricity,	Pittsburgh,	96	108	90	460
Totals,				31						570,386
W. J. Rainey,	Royal,	Shaft,	Gaseous,	19	Compressed air,	Pittsburgh,	90	96	84	173,983
Westmoreland Coal Co.,	Magee,	Slope,	Gaseous,	13	Electricity,	Pittsburgh,	84	90	78	440,749
Youghiogheny and Ohio Coal Co.,	Osborne No. 1,	Slope,	Gaseous,	10	Electricity,	Pittsburgh,	84	90	78	567,032
	Osborne No. 2,	Drift,	Non-gas.,	10						
Totals,				20						567,032
Pittsburgh and Erie Coal Co.,	Sumner No. 2,	Slope,	Gaseous,	8	Electricity,	Pittsburgh,	84	90	78	240,200
Whyel Coke Co.,	Yukon,	Slope,	Non-gas.,	5	Electricity,	Pittsburgh,	84	90	78	171,135

TABLE J.—Continued

Names of Operators	Names of Mines	Kind of opening	Gaseous or non-gaseous	Number of mining machines used	Power used by machines	Geological and local names of seams	Average thickness in inches	Height of Seam in Inches		Approximate number of tons produced by machines
								Thickest	Thinnest	
Mount Hope Coke Co., ...	Mount Hope, ...	Drift, ...	Gaseous, ..	3	Electricity,......	Pittsburgh, ...	86	88	82	108,972
Sunshine Coal and Coke Co., ...	Cyrilla No. 2, ...	Drift, ...	Non-gas., .	1	Electricity,......	Pittsburgh, ...	86	88	84	80,000
Dunbar Furnace Co., ...	Furnace No. 1, ...	Slope, ...	Non-gas., .	4	Compressed air,.	Upper Freeport, ..	50	60	44	57,786
Grand totals, ...	....	....	....	104	....	....	......	......	......	2,860,248

TABLE 1.—Operators, Location of Mines, Railroads, etc.

Names of Operators and Mines	County	Name of General Superintendent	Post Office	Name of Superintendent	Post Office	Railroad to Mine
H. C. Frick Coke Co.						
Adelaide,	Fayette,	W. H. Clingerman,	Scottdale,	W. B. Barnhart,	Adelaide,	P. and L. E.
Alverton,	Westmoreland,			S. B. Marton,	Alverton,	Pennsylvania
Bitner,	Fayette,			J. H. Pettigrew,	Dunbar, R. D. No. 32	Penna. and B. and O.
Coal-Brook,	Fayette,			R. C. Beerbower,	Connellsville,	Pennsylvania
Colonial No. 1,	Fayette,			B. J. Murphy,	Smock,	P. V. and C.
Colonial No. 3,	Fayette			H. G. Lightcap,	Rowers Run,	P. V. and C.
Colonial No. 4,	Fayette,			Calvin Hesse,	Grindstone,	P. V. and C.
Central,	Westmoreland,			H. G. Brown,	Tarr,	Pennsylvania
Davidson,	Fayette,			R. C. Beerbower,	Connellsville,	Penna. and B. and O.
Henry Clay,*	Fayette,			J. M. Shields,	Broadford,	B. and O.
Juniata,	Fayette,			James A. Childs,	Dunbar, R. D. No. 32	B. and O.
Leisenring No. 1,	Fayette,			C. B. Franks,	Leisenring No. 1,	B. and O. and Penna.
Leisenring No. 3,	Fayette,			R. V. Rex,	Dunbar, R. D. No. 32	Pennsylvania
Rist,	Fayette,			J. M. Shields,	Broadford,	B and O.
Southwest No. 1,	Westmoreland,			James A. Cowan,	Mount Pleasant,	Pennsylvania
Southwest No. 2,	Westmoreland,			J. Q. Finch,	Mount Pleasant,	Pennsylvania
Southwest No. 3,	Westmoreland,			B. B. Boyd,	Tarr,	Pennsylvania
Trotter,	Fayette,			P. J. Tormay,	Connellsville,	Penna. and B. and O.
Valley,	Fayette,			James Lynch,	Scottdale,	Penna. and B. and O.
White,	Fayette,			James Lynch,	Scottdale,	B. and O.
W. J. Rainey						
Elm Grove,	Fayette,			J. W. Bingaman,	Dunbar, R. D. No. 32	B. and O.
Fort Hill,	Fayette,			J. B. Henderson,	Vanderbilt,	P. and L. E.
Grace,	Fayette,			F. R. Bradford,	Connellsville,	Pennsylvania
Paul,	Fayette,			J. B. Henderson,	Vanderbilt,	P. and L. E.
Royal,	Fayette,			I. T. Mullen,	Chestnut Ridge,	Pennsylvania
Union,	Westmoreland,			A. A. Mitchell,	Alverton,	Pennsylvania
Westmoreland Coal Co.						
Magee,	Westmoreland,	A. P. Cameron,	Irwin,	Frank Steiner,	Yukon,	Pennsylvania
Youghiogheny and Ohio Coal Co.						
Osborne Nos. 1 and 2,	Westmoreland,	A. W. Osborne,	Cleveland, O.,	G. W. Smith,	Wyano,	Pennsylvania
Pittsburgh and Erie Coal Co.						
Sunner Nos. 1* and 2,	Fayette,			James Henderson,	Brasnell,	Pennsylvania
Whyel Coke Co.						
Yukon,	Westmoreland,	Harry Whyel	Uniontown,	J. A. Abraham,	Yukon,	Pennsylvania

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*Idle.

TABLE 1.—Continued

Names of Operators and Mines	County	Name of General Superintendent	Post Office	Name of Superintendent	Post Office	Railroad to Mine
Mount Hope Coke Co. Mount Hope,	Fayette,	Isaac Taylor,	Uniontown,	Isaac Taylor,	Uniontown,	Pennsylvania
Brown and Cochran Nellie,	Fayette,	J. S. Laughrey,	Dawson,	J. S. Laughrey,	Dawson,	P. and L. E.
Sunshine Coal and Coke Co. Cyrilla No. 2, Sunshine No. 6,	Fayette,	J. B. Topham,	Uniontown,	John J. Walsh,	Braznell,	Pennsylvania
Dunbar Furnace Co. (William Selfridge, Trustee in Bankruptcy) Furnace Nos. 1 and 2,*,	Fayette,	Stuart B. Marshall,	Dunbar,	John W. Greaves,	Dunbar,	Dunbar Furnace Co.
Genuine Connellsville Coke Co. Park Hill,	Fayette,	M. F. Pickard,	Waltersburg,	F. H. Boyd,	Waltersburg,	Pennsylvania
Brownfield Connellsville Coke Co. Myers,	Westmoreland,	W. J. White,	Uniontown,	R. L. Goff,	Tarr,	Pennsylvania
Mahoning Coke Co. Mahoning,	Fayette,	J. M. Grey,	Connellsville,	William Ganier,	Connellsville,	Pennsylvania
Keystone Coal and Coke Co. Greensburg No. 4,†	Westmoreland,	H. F. Bovard,	Greensburg,			Pennsylvania
Franklin Coke Co. Leon,	Fayette,	James S. Braddock,	Mount Pleasant,	Charles A. Wilson,	Smock,	Pennsylvania
Peerless Connellsville Coke Co. Carolyn,	Westmoreland,	J. W. Byers,	Alverton,	J. W. Byers,	Alverton,	Pennsylvania
Cochran Brothers Spring Grove,	Fayette,	A. J. Cochran,	Dawson,	James A. Hay,	Dawson,	B. and O.

*Idle.
†New mine.

TABLE 2.—Number of tons of coal mined and tons of coke produced, number of days worked, number of persons employed, number killed and injured, quantity of powder, dynamite and permissible explosives used, etc.

Names of Operators and Mines	County	Number of tons of coal shipped to market	Number of tons used at mines for steam and heat	Number of tons sold to local trade and used by employes	Number of tons used in manufacture of coke	Total production of coal in tons	Total production of coke in tons	Number of coke ovens	Number of days worked	Number of employes	Number of fatal accidents	Number of non-fatal accidents	Explosives			Number of horses and mules
													Number of pounds of powder used	Number of pounds of dynamite used	Number of pounds of permissible explosives used	
H. C. Frick Coke Co.																
Adelaide, ...	Fayette, ...	252	3,210	1,797	184,323	189,582	122,880	375	291	175	....	1	....	....	5,800	26
Alverton, ...	Westmoreland, ..	....	3,384	1,240	202,837	207,461	135,222	356	289	192	....	....	....	....	9,145	33
Bitner, ...	Fayette, ...	....	468	1,861	273,082	275,411	170,677	300	289	188	1	1	....	....	28,363	25
Coal-Brook, ...	Fayette, ...	....	958	1,329	78,326	80,613	52,215	120	289	79	....	....	....	....	10,431	11
Colonial No. 1, ...	Fayette, ...	....	3,536	1,500	405,049	410,085	253,155	500	294	365	....	5	....	....	5,977	50
Colonial No. 3, ...	Fayette, ...	34,105	5,533	865	175,593	216,096	109,746	156	296	151	....	....	....	....	5,480	25
Colonial No. 4, ...	Fayette, ...	939	4,769	2,494	254,749	262,951	159,218	300	294	207	1	....	....	....	29,800	44
Central, ...	Westmoreland, ..	....	4,612	2,208	261,559	268,379	174,437	301	294	238	....	....	....	....	30,934	42
Davidson, ...	Fayette, ...	85	8,617	3,163	260,312	272,177	173,539	333	291	290	1	2	....	....	24,123	42
Henry Clay,*	Fayette, ...	....	....	....	....	....	....	120	......	......	....	....	....	....	....	....
Juniata, ...	Fayette, ...	109	5,672	2,727	221,614	230,122	147,741	250	292	240	....	....	....	....	23,675	27
Leisenring No. 1, ...	Fayette, ...	1,051	18,296	3,601	379,998	402,946	253,329	499	291	383	2	....	....	....	40,079	56
Leisenring No. 3, ...	Fayette, ...	....	7,804	2,857	368,218	378,879	245,477	502	292	435	1	1	....	....	20,500	60
Rist, ...	Fayette, ...	26,316	2,279	1,369	94,606	124,570	59,128	165	289	104	....	....	....	....	7,000	20
Southwest No. 1, ...	Westmoreland, ..	....	19,090	10,080	368,506	397,676	245,670	625	292	420	....	....	....	....	20,927	68
Southwest No. 2, ...	Westmoreland, ..	....	1,061	504	106,913	108,478	71,272	252	288	109	....	1	....	....	11,400	22
Southwest No. 3, ...	Westmoreland, ..	....	5,750	1,524	168,375	175,649	112,246	205	288	158	....	....	....	....	11,500	27
Trotter, ...	Fayette, ...	....	15,813	4,816	394,036	414,665	262,690	464	287	425	2	3	....	....	8,690	41
Valley, ...	Fayette, ...	....	857	1,238	89,327	91,422	55,829	252	289	81	....	....	....	....	6,000	14
White, ...	Fayette, ...	....	826	780	93,414	95,020	58,384	200	288	54	1	....	....	....	4,000	18
Totals, ...	....	62,857	112,535	45,953	4,380,887	4,602,182	2,862,855	6,175	......	4,294	9	14	....	....	303,824	651

*Idle.

TABLE 2.—Continued

Names of Operators and Mines	County	Number of tons of coal shipped to market	Number of tons used at mines for steam and heat	Number of tons sold to local trade and used by employes	Number of tons used in manufacture of coke	Total production of coal in tons	Total production of coke in tons	Number of coke ovens	Number of days worked	Number of employes	Number of fatal accidents	Number of non-fatal accidents	Explosives			Number of horses and mules
													Number of pounds of powder used	Number of pounds of dynamite used	Number of pounds of permissible explosives used	
W. J. Rainey																
Elm Grove, ...	Fayette, ...	....	1,023	1,366	181,293	183,682	120,862	200	304	199	....	2	....	....	2,425	20
Fort Hill, ...		....	1,341	1,060	153,092	155,493	102,680	175	278	171	....	....	....	....	800	8
Grace, ...		....	2,762	1,094	104,499	108,355	69,666	118	304	112	1	....	....	....	2,000	18
Paul, ...		....	3,935	1,314	160,635	165,884	107,900	175	305	190	1	....	....	....	5,000	19
Royal, ...		....	10,907	5,644	282,421	298,972	184,841	250	298	321	....	3	....	500	26,500	68
Union, ...	Westmoreland, ..	....	373	78	33,072	33,523	22,048	50	292	43	....	....	....	....	....	6
Totals, ...	....	....	20,341	10,556	915,012	945,909	607,997	968	......	1,036	2	5	....	500	36,725	139
Westmoreland Coal Co.																
Magee, ...	Westmoreland, ..	731,600	10,115	2,590	....	744,305	....	......	299	585	4	1	55,000	....	6,000	33
Youghiogheny and Ohio Coal Co.																
Osborne No. 1, ...	Westmoreland,	721,006	5,750	1,331	....	728,087	....	......	263	317	1	9	31,000	900	1,000	....
Osborne No. 2, ...	Westmoreland,								263	346	2	9	50,000	700	....	....
Totals, ...	....	721,006	5,750	1,331	....	728,087	....	......	......	663	3	18	81,000	1,600	1,000	....
Pittsburgh and Erie Coal Co.																
Sumner No. 2, ...	Fayette, ...	334,865	4,200	1,250	....	340,315	....	......	262	282	2	....	3,500	600	....	20
Whyel Coke Co.																
Yukon, ...	Westmoreland, ..	176,553	....	....	51,628	228,181	31,418	70	293	194	....	4	87,900	....	....	8
Mount Hope Coke Co.																
Mount Hope, ...	Fayette, ...	....	....	450	139,539	139,989	96,150	150	287	120	....	3	....	....	125	6

Brown and Cochran																
Nellie, ...	Fayette, ...	....	6,582	....	106,836	113,418	53,419	330	311	157	....	1	....	1,000	8,000	26
Sunshine Coal and Coke Co.																
Cyrilla No. 2, ...	Fayette, ...	4,577	2,292	96	100,716	107,681	67,145	142	304	123	....	1	....	......	10,000	13
Sunshine No. 6, ...	Fayette, ...	....	60	25	3,700	3,785	2,465	54	52	37	....	....	....	....	500	3
Totals, ...	....	4,577	2,352	121	104,416	111,466	69,610	196	......	160	....	1	....	....	10,500	16
Dunbar Furnace Co.																
Furnace No. 1, ...	Fayette, ...	....	15,886	72,292	....	88,178	....	......	301	82	....	....	....	....	13,996	12
Genuine Connellsville Coke Co.																
Park Hill, ...	Fayette, ...	....	750	1,917	40,975	43,642	31,530	58	263	56	....	....	....	....	3,000	5
Brownfield Connellsville Coke Co.																
Myers, ...	Westmoreland, ..	1,130	....	200	30,000	31,330	24,000	32	287	58	....	....	....	....	....	8
Mahoning Coke Co.																
Mahoning, ...	Fayette, ...	3,273	1,200	576	24,400	29,449	16,400	50	267	44	....	....	....	....	1,650	6
Keystone Coal and Coke Co.																
Greensburg No. 4, ...	Westmoreland, ..	22,958	38	178	....	23,174	....	......	260	62	....	....	4,000	50	....	4
Franklin Coke Co.																
Leon, ...	Fayette, ...	1,036	80	53	20,759	21,928	12,552	30	238	28	....	....	....	....	2,500	2
Peerless Connellsville Coke Co.																
Carolyn, ...	Westmoreland, ..	10,500	100	150	6,000	16,750	5,000	32	214	30	....	....	....	....	2,000	5
Cochran Brothers																
Spring Grove, ...	Fayette, ...	786	66	49	10,296	11,197	7,603	61	148	35	....	....	....	....	1,000	7
Grand totals, ...	....	2,071,141	179,995	187,666	5,830,698	8,219,500	3,818,534	8,252	......	7,886	20	47	231,400	3,750	390,320	948

TABLE 2—Part 2

Names of Operators	County	Number of Boilers					Locomotives				Number of steam engines of all classes	Total horse power	Number of pumps delivering water to surface	Capacity in gallons per minute	Quantity delivered to surface per minute—gallons	Number of electric dynamos	Number of air compressors
		Cylindrical	Horse power	Tubular	Horse power	Total horse power	Gasoline	Steam	Air	Electric							
H. C. Frick Coke Co., ...	Fayette, ... Westmoreland,.	18	790	105	14,065	14,855	......	21	11	11	95	11,411	46	29,217	14,495	14	16
W. J. Rainey, ...	Fayette, ... Westmoreland, .	4	230	29	3,740	3,970	......	......	......	1	28	2,510	17	6,930	3,780	5	9
Westmoreland Coal Co., ...	Westmoreland, .	......	......	4	1,200	1,200	......	......	......	7	10	650	3	2,200	2,200	4	......
Youghiogheny and Ohio Coal Co., ...	Westmoreland, .	......	......	8	1,200	1,200	......	......	......	21	6	1,600	3	2,000	450	3	......
Pittsburgh and Erie Coal Co.,	Fayette, ...	......	......	5	550	550	......	......	......	3	3	310	4	1,600	800	2	......
Whyel Coke Co., ...	Westmoreland, .	......	......	....	....	....	......	......	......	3	......	......	2	225	225	1	1
Mount Hope Coke Co., ...	Fayette, ...	......	......	....	....	....	......	......	......	1	......	......	......	......	......	......	......
Brown and Cochran, ...	Fayette, ...	......	......	3	200	200	......	1	......	1	3	100	......	....	......	1	......
Sunshine Coal and Coke Co.,	Fayette, ...	......	......	3	130	130	......	......	......	1	2	80	2	50	25	1	......
Dunbar Furnace Co., ...	Fayette, ...	6	450	2	600	1,050	......	......	......	......	6	275	5	520	450	......	1
Genuine Connellsville Coke Co., ...	Fayette.	1	10	2	70	80	......	1	......	......	2	26	......	......	......	......	......
Brownfield Connellsville Coke Co., ...	Westmoreland, .	......	......	....	....	....	......	......	......	......	......	......	1	100	75	......	......
Mahoning Coke Co., ...	Fayette, ...	......	......	2	180	180	......	......	......	......	1	80	......	......	......	......	......
Keystone Coal and Coke Co.,	Westmoreland, .	1	65	....	....	65	......	......	......	......	1	65	......	......	......	......	......
Franklin Coke Co., ...	Fayette, ...	......	......	1	25	25	......	1	......	......	1	25	......	......	......	......	......
Peerless Connellsville Coke Co., ...	Westmoreland, .	......	......	1	20	20	......	......	......	......	......	......	......	......	......	......	......
Cochran Brothers, ...	Fayette, ...	......	......	1	25	25	......	......	......	......	1	25	......	......	......	......	......
Totals, ...	....	30	1,545	166	22,005	23,550	......	24	11	49	159	17,157	83	42,842	22,500	31	27

TABLE 3.—Number of Each Class of Employes Inside and Outside of Mines

Names of Operators	County	Inside												Outside								Grand total inside and outside
		Mine foremen	Assistant mine foremen	Fire bosses	Miners	Machine runners	Machine loaders	Machine scrapers	Drivers and runners	Doorboys and helpers	Company men	All other employes	Total inside	Superintendents	Foremen	Blacksmiths and carpenters	Engineers and firemen	Coke employes	Bookkeepers and clerks	All other employes	Total outside	
H. C. Frick Coke Co., ...	Westmoreland, Fayette, ...	19	22	34	1,372	23	162	21	190	31	298	314	2,486	19	33	96	126	1,002	25	507	1,808	4,294
W. J. Rainey, ...	Westmoreland, Fayette, ...	6	2	7	276	11	52	11	57	3	....	151	576	6	5	27	34	246	35	107	460	1,036
Westmoreland Coal Co., ...	Westmoreland,	1	2	4	90	30	320	....	29	....	42	14	532	1	....	4	3	......	1	44	53	585
Youghiogheny and Ohio Coal Co., ...	Westmoreland,	2	5	4	64	19	351	19	38	3	68	....	573	1	1	5	6	......	3	74	90	663
Pittsburgh and Erie Coal Co.,	Fayette, ...	1	1	4	40	18	150	18	14	4	5	....	255	1	1	4	4	......	2	15	27	282
Whyel Coke Co., ...	Westmoreland,	1	1	..	129	10	......	....	12	1	....	6	160	1	1	2	1	20	1	8	34	194
Mount Hope Coke Co., ...	Fayette, ...	1	..	1	23	5	43	5	6	1	8	3	96	1	1	2	....	17	1	2	24	120
Brown and Cochran, ...	Fayette, ...	1	1	..	60	....	......	....	6	2	5	....	75	1	1	1	3	70	1	5	82	157
Sunshine Coal and Coke Co.,	Fayette, ...	2	..	1	52	....	......	....	8	....	20	....	83	1	2	4	4	42	2	22	77	160
Dunbar Furnace Co., ...	Fayette, ...	1	..	2	14	4	18	4	6	1	5	7	62	1	1	2	8	......	....	8	20	82
Genuine Connellsville Coke Co., ...	Fayette, ...	1	1	..	21	....	......	....	3	....	2	....	28	1	1	1	2	15	1	7	28	56
Brownfield Connellsville Coke Co., ...	Westmoreland,	1	1	..	30	....	......	....	4	....	2	2	40	1	1	1	....	10	1	4	18	58
Mahoning Coke Co., ...	Fayette, ...	1	..	1	21	....	......	....	3	....	8	1	35	1	....	2	3	......	1	2	9	44
Keystone Coal and Coke Co.,	Westmoreland,	1	..	..	50	....	......	....	8	....	....	....	59	....	....	1	....	......	....	2	3	62
Franklin Coke Co., ...	Fayette, ...	1	..	..	12	....	......	....	2	....	1	1	17	....	....	1	2	6	1	1	11	28
Peerless Connellsville Coke Co., ...	Westmoreland,	1	..	..	14	....	......	....	2	....	3	....	20	1	....	....	....	8	1	....	10	30
Cochran Brothers, ...	Fayette, ...	1	..	..	12	....	......	....	4	....	2	....	19	....	....	3	....	12	1	....	16	35
Totals, ...	....	42	36	58	2,280	120	1,096	78	392	46	469	499	5,116	37	48	156	196	1,448	77	808	2,770	7,886

TABLE 3.—Part 2

Names of Operators	County	Average Number of Days Worked												
		January	February	March	April	May	June	July	August	September	October	November	December	Total
H. C. Frick Coke Co.,	**Fayette,** Westmoreland,	27	24	25	24	27	25	26	25	26	26	21	15	291
W. J. Rainey,	Fayette, Westmoreland,	27	24	26	24	27	25	25	25	26	27	22	19	297
Westmoreland Coal Co.,	Westmoreland,	25	20	25	25	26	25	26	26	26	26	24	25	299
Youghiogheny and Ohio Coal Co.,	Westmoreland,	21	16	21	19	23	24	25	23	21	21	24	25	263
Pittsburgh and Erie Coal Co.,	Fayette,	25	17	16	24	24	19	24	24	24	27	22	16	262
Whyel Coke Co.,	Westmoreland,	27	24	23	26	26	25	26	25	25	26	25	15	293
Mount Hope Coke Co.,	Fayette,	21	23	24	24	26	25	25	28	24	22	23	24	287
Brown and Cochran,	Fayette,	26	24	26	27	27	25	28	26	26	27	25	26	311
Sunshine Coal and Coke Co.,	Fayette,	27	24	14	13	12	13	13	11	12	14	12	13	178
Dunbar Furnace Co.,	Fayette,	27	25	25	25	24	20	22	25	30	27	30	21	301
Genuine Connellsville Coke Co.,	Fayette,	27	24	25	21	25	25	20	22	18	20	20	16	263
Brownfield Connellsville Coke Co.,	Westmoreland,	24	23	25	25	25	23	20	22	25	26	25	24	287
Mahoning Coke Co.,	Fayette,	......	11	26	26	26	25	26	26	25	27	24	25	267
Keystone Coal and Coke Co.,	Westmoreland,	......	......	27	26	27	26	26	26	26	27	24	25	260
Franklin Coke Co.,	Fayette,	26	24	26	8	23	21	24	25	24	24	13	......	238
Peerless Connellsville Coke Co.,	Westmoreland,	27	24	26	......	......	......	15	25	26	26	25	20	214
Cochran Brothers,	Fayette,	27	24	25	23	25	24	......	......	......	......	......	......	148

TABLE 4.—Fatal Accidents Inside and Outside of Mines

Date of accident		Name of Person	Nationality	Occupation	Age	Married or single	Number of widows	Number of orphans	Name of Mine	County	Nature and Cause of Accident in Brief
Jan.	6	Paul Otina,	Italian,	Driver,	27	M.	1	....	Magee,	Westmoreland,	Fatally injured by being caught between car and rib on entry when he jumped off the car on the narrow side. Died shortly afterward.
	16	John Leckuz,	Granadian,	Loader,	18	S.	....	....	Magee,	Westmoreland,	Fatally injured by coal from a blast fired in adjoining place. Insufficient warning was given regarding the blast. Died a few days afterward.
Feb.	14	Frank Youst,	American,	Driver,	22	S.	....	....	White,	Fayette,	Instantly killed by a fall of roof near face of pillar. The place fell without warning while he was passing with a loaded car.
		Alexander Durando,	Russian,	Miner,	33	M.	1	1	Magee,	Westmoreland,	Fatally injured by fall of roof at face of pillar while drawing posts. Died shortly afterward.
	24	Tony Mingora,	Italian,	Driver,	19	S.	....	....	Bitner,	Fayette,	Fatally injured by being caught between car and rib on entry. Died shortly afterward.
	25	John McIntyre,	Irish,	Rib boss,	61	M.	1	1	Leisenring No. 1	Fayette,	Instantly killed by fall of roof in pillar workings while preparing to make a fall. The place fell suddenly and without warning.
		John Slewslaw,	Polish,	Miner,	47	M.	1	4			
March	1	John Smith,	American,	Miner,	56	S.	....	....	Grace,	Fayette,	Instantly killed by fall of slate at face of pillar. He neglected to post his place.
	11	Peter Smith,	Polish,	Company man	35	S.	....	....	Osborne No. 2,	Westmoreland,	Fatally injured by being caught between car and rib on entry. It is presumed that his clothing caught on the passing car which dragged him into the narrow place. Died shortly afterward.
April	2	Frank Plesko,	Slavonian,	Miner,	41	S.	....	....	Colonial No. 4,	Fayette,	Killed near bottom of shaft by cage that was hoisted without being signaled for by the cager.
	24	Peter Bueicher,	German,	Miner,	59	M.	1	3	Davidson,	Fayette,	Instantly killed by fall of roof at face of pillar. The place was not properly secured with timber.

TABLE 4—Continued

Date of accident		Name of Person	Nationality	Occupation	Age	Married or single	Number of widows	Number of orphans	Name of Mine	County	Nature and Cause of Accident in Brief
May	19	Edwin Prichard, ...	American, ..	Motorman, ..	20	W.	....	....	Osborne No. 2, ..	Westmoreland,.	Instantly killed by runaway trip on entry.
June	27	Ignots Malanick, ...	Horwat, ...	Loader, ...	41	M.	1	2	Sumner No. 2, ..	Fayette, ...	Instantly killed by fall of slate at face of room.
July	10	Stephen Parko, ...	Slavonian, ..	Loader, ...	40	M.	1	4	Sumner No. 2, ..	Fayette, ...	Instantly killed by fall of slate at face of room.
	29	Joseph Honesek, ...	American, ..	Trapper, ...	17	S.	....	....	Trotter, ...	Fayette, ...	Killed by mine cars on entry. He either lost his light or became confused, and in attempting to board the front end of the moving cars he fell under them.
	30	Joseph Crish, ...	Italian, ...	Company man	60	M.	1	....	Paul, ...	Fayette, ...	Killed on top of coke ovens. He was riding on a larry, contrary to the rules of the company, when an axle broke, causing the larry to jump the track and topple over on him. Outside.
Aug.	18	Rocca Deconza, ...	Italian, ...	Switch tender	18	S.	....	....	Trotter, ...	Fayette, ...	Fatally injured. Caught between cars on sidetrack when the bumper of one of the cars rode over the bumper on the next car. Died shortly afterward.
	20	Cecil R. Long, ...	American, ..	Company man	25	M.	1	....	Leisenring No. 3,	Fayette, ...	Killed by falling down shaft which he was helping to re-timber. As he stepped back from a piece of falling slate he fell off the scaffolding into the shaft.
Sept.	6	Matia Jerman, ...	Granadian,	Miner, ...	35	M.	1	4	Magee, ...	Westmoreland,.	Fatally injured. Hit in the stomach by a post that he was pulling out from under a fall at face of pillar workings. Died a few days afterward.
Nov.	19	John Loss, ...	Hungarian, .	Loader, ...	46	M.	1	4	Osborne No. 1, ..	Westmoreland,.	Killed by fall of slate at face of pillar. He knocked out the post securing the slate and then he reached under the slate to get a pick and it fell on him.

TABLE 5.—Non-Fatal Accidents Inside and Outside of Mines

Date of accident		Name of Person	Nationality	Occupation	Age	Married or single	Name of Mine	County	Nature and Cause of Accident in Brief
Jan.	31	James Ray,	American,	Motorman,	19	S.	Osborne No. 1,	Westmoreland,	Ankle bruised by being caught between bumpers of motor on entry when he attempted to get off while the motor was moving.
Feb.	6	John McKolky,	Slavonian,	Trip runner,	22	S.	Colonial No. 1,	Fayette,	Arm broken by mine cars on slope. The rope tripped him.
	7	Andrew Ketchinsky,	American,	Brakeman,	19	S.	Osborne No. 1,	Westmoreland,	Bones broken in foot by being caught between cars on entry.
	20	John Conzier,	Hungarian,	Blacksmith,	20	S.	Osborne No. 1,	Westmoreland,	Eye knocked out by being struck by piece of flying wood. Outside.
	28	Albert Cruse,	American,	Miner,	38	S.	Cyrilla No. 2,	Fayette,	Leg broken by fall of slate at face of pillar.
March	15	Frank Haas,	German,	Motorman,	27	M.	Bitner,	Fayette,	Arm crushed by being caught between car and timber on entry.
	24	Christ Garehart,	American,	Tippleman,	53	M.	Southwest No. 2,	Westmoreland,	Legs cut and bruised by mine cars on tipple. Outside.
	26	Peter Gurshic,	Slavonian,	Company man,	42	M.	Elm Grove,	Fayette,	Pelvis injured by fall of slate at face of room.
April	8	Micheal Sabolish,	Slavonian,	Driver,	34	M.	Mount Hope,	Fayette,	Collar bone broken by being caught between car and rib on entry.
	14	Micheal Kokie,	Hungarian,	Driver,	25	M.	Yukon,	Westmoreland,	Three fingers amputated. Caught between car and rib on entry.
	22	J. R. Bewick,	American,	Driver,	23	M.	Leisenring No. 3,	Fayette,	Leg amputated. Caught between car and post in room.
	25	Victor Haney,	American,	Company man,	17	S.	Colonial No. 1,	Fayette,	Body injured by fall of slate at face of pillar.
		John Prescott,	Slavonian,	Miner,	44	M.	Colonial No. 1,	Fayette,	Hip dislocated by fall of slate at face of pillar.
	26	John Ipigo,	Polish,	Company man,	22	S.	Osborne No. 1,	Westmoreland,	Foot crushed between cars on entry.
May	1	Daniel Ferrira,	American,	Driver,	18	S.	Trotter,	Fayette,	Leg broken by being caught by cars on sidetrack.
	7	Joseph Bern,	Hungarian,	Brakeman,	25	M.	Osborne No. 2,	Westmoreland,	Collar bone broken by being caught between car and rib on entry.
	8	Charles Keis,	Hungarian,	Loader,	26	M.	Osborne No. 2,	Westmoreland,	Hip broken by fall of slate at face of room.

TABLE 5—Continued

Date of accident		Name of Person	Nationality	Occupation	Age	Married or single	Name of Mine	County	Nature and Cause of Accident in Brief
May	12	John Maketta,	Russian,	Machine runner,	25	M.	Osborne No. 2,	Westmoreland,	Leg broken by fall of slate at face of pillar work.
	15	George Motto,	Slavonian,	Loader,	23	S.	Yukon,	Westmoreland,	Leg broken by fall of slate at face of entry.
	17	Andrew Galalash,	Austrian,	Miner,	33	M.	Osborne No. 1,	Westmoreland,	Leg broken by fall of coal at face of pillar work.
	20	George Cowach,	Austrian,	Company man,	36	S.	Royal,	Fayette,	Back injured by piece of concrete falling on him.
June	3	David Renegal,	Italian,	Company man,	45	M.	Royal,	Fayette,	Leg broken by fall of slate on entry.
	9	Martin Manascheck,	Slavonian,	Miner,	30	M.	Colonial No. 1,	Fayette,	Leg broken by fall of slate at face of pillar work.
	12	Moses Gregory,	American,	Driver,	46	M.	Elm Grove,	Fayette,	Arm broken by falling in front of mine car on entry.
	21	John Fusick,	Slavonian,	Driver,	19	S.	Mount Hope,	Fayette,	Arm broken by falling off mine car on entry.
	28	John Sirdoko,	Slavonian,	Company man,	22	S.	Colonial No. 1,	Fayette,	Leg broken by mine car on slope. He was moving car contrary to orders.
July	2	Laurence Cominski,	Polish,	Loader,	22	S.	Osborne No. 2,	Westmoreland,	Foot crushed by fall of slate near face of room.
	3	Andrew Sendusky,	Polish,	Miner,	36	M.	Osborne No. 1,	Westmoreland,	Hip dislocated by fall of slate at face of entry.
	10	Amiel Velamo,	Italian,	Miner,	36	M.	Osborne No. 2,	Westmoreland,	Leg broken by fall of slate at face of pillar.
	11	Charles Coll,	American,	Driver,	19	S.	Adelaide,	Fayette,	Leg injured by being caught between cars on entry.
	14	Luis Compasky,	Magyar,	Miner,	22	S.	Trotter,	Fayette,	Leg broken by fall of roof at face of pillar work.
		Frederick Rock,	Italian,	Miner,	32	M.	Davidson,	Fayette,	Eyes injured. by blast while mining into a shot that had missed fire.
		Christ Dominic,	Italian,	Miner,	40	M.	Davidson,	Fayette,	Ear drum bursted by blast while mining into a shot that had missed fire.
	21	Harry Bibby,	American,	Company man,	18	S.	Yukon,	Westmoreland,	Cut and bruised on body. Caught by mine car on entry.
	25	John Tauckosh,	Austrian,	Loader,	22	S.	Osborne No. 2,	Westmoreland,	Legs broken by coal falling on him at face of room.

Aug.	1	Peter Babilon, ...	Croatian, ..	Miner, ...	22	S.	Nellie, ...	Fayette, ...	Arm broken. He slipped upon a piece of iron rail on entry.
	14	Thomas Ohler, ...	American, ..	Driver, ...	25	M.	Yukon, ...	Westmoreland,.	Hand injured and fingers broken by being caught by car on entry.
	30	Charles Diminick, ...	Italian, ...	Loader, ...	37	M.	Osborne No. 1, ...	Westmoreland,.	Leg broken by fall of slate at face of room.
Sept.	8	Charles Yarmo, ...	Slavonian, ..	Miner, ...	26	M.	Mount Hope, ...	Fayette, ...	Ankle broken by fall of roof at face of pillar.
	9	John Coblish, ...	Austrian, ..	Miner, ...	27	S.	Royal, ...	Fayette, ...	Leg broken by being thrown off car on entry.
	23	Micheal Okinder, ...	Lithuanian,	Loader, ...	51	M.	Osborne No. 1, ...	Westmoreland,.	Arm broken by fall of slate at face of room.
Oct.	9	James Carey, ...	English, ...	Company man, ...	40	S.	Osborne No. 2, ...	Westmoreland,.	Internally injured by fall of slate on entry.
Nov.	4	Charles Copanish, ...	Slavonian, ..	Loader, ...	32	M.	Osborne No. 1, ...	Westmoreland,.	Leg broken and arm amputated by fall of slate at face of entry.
	11	John Christloskey, ...	Polish, ...	Loader, ...	19	S.	Osborne No. 2, ...	Westmoreland,.	Arm broken by fall of coal at face of room.
	28	Micheal Hurley, ...	American, ..	Company man, ...	35	M.	Trotter, ...	Fayette, ...	Arm broken by high pressure air pipe bursting in pump room.
Dec.	10	Alexander Sacko, ...	Russian, ...	Company man, ...	28	M.	Magee, ...	Westmoreland,.	Leg broken by fall of slate near face of room.
	21	Luis Nemitt, ...	Austrian, ..	Miner, ...	17	S.	Osborne No. 2, ...	Westmoreland,.	Two ribs broken by fall of coal near face of room.

CONDITION OF MINES

H. C. FRICK COKE COMPANY

Adelaide—Condition as to health, ventilation and drainage, very good. The timbering is excellent.

Alverton—Ventilation, drainage and general condition good.

Bitner—Ventilation good, except in a few places. Drainage good.

Coal-Brook—Ventilation and drainage good.

Colonial No. 1.—On my last inspection the ventilation, drainage and general conditions were good, and showed a big improvement over conditions on former inspection.

Colonial No. 3.—Ventilation, drainage and general condition very good.

Colonial No. 4.—Ventilation good, but needed to be directed to the working faces. Drainage good.

Central—In excellent condition in every respect.

Davidson—Ventilation good, but was not being directed to the working faces on one section, at the time of my last visit. This, however, has been remedied. Drainage good.

Henry Clay—Idle entire year.

Juniata—Ventilation, drainage and general conditions, excellent.

Leisenring No. 1.—In excellent condition.

Leisenring No. 3.—Condition as to safety, ventilation and drainage, good

Rist—In a safe and healthy condition. Ventilation and drainage good.

Southwest No. 1.—Ventilation, drainage and general conditions, good.

Southwest No. 2.—In very good condition.

Southwest No. 3.—Ventilation and drainage good.

Trotter—In excellent condition. Ventilation of the working faces particularly good.

Valley—In very good condition as to health, safety, ventilation and drainage.

White—Ventilation and drainage good.

W. J. RAINEY

Elm Grove—In excellent condition.

Fort Hill—Ventilation and drainage very good.

Grace—In a safe and healthy condition. Safety lamps were installed during the year as a safety precaution.

Paul—In very good condition as to ventilation, safety and drainage.

Royal—In good condition as to ventilation and drainage. Sides of entries were dirty but are being cleaned up.

Union—A small mine. In very good condition.

WESTMORELAND COAL COMPANY

Magee—In a safe and healthy condition. Ventilation and drainage good.

YOUGHIOGHENY AND OHIO COAL COMPANY

Osborne No. 1.—In excellent condition as to ventilation, safety and drainage.

Osborne No. 2.—In excellent condition.

PITTSBURGH AND ERIE COAL COMPANY

Sumner No. 1.—Idle entire year.

Sumner No. 2.—Ventilation and drainage good.

WHYEL COKE COMPANY

Yukon—In a safe and healthy condition. Ventilation and drainage good.

MOUNT HOPE COKE COMPANY

Mount Hope—Ventilation, drainage and general conditions, good.

BROWN AND COCHRAN

Nellie—In excellent condition.

SUNSHINE COAL AND COKE COMPANY

Cyrilla No. 2.—Ventilation and drainage good.

Sunshine No. 6.—Worked but a short time, and not inspected while in operation.

DUNBAR FURNACE COMPANY

(William Selfridge, Trustee in Bankruptcy)

Furnace No. 1.—In very good condition as to ventilation and drainage.

Furnace No. 2.—Idle entire year.

GENUINE CONNELLSVILLE COKE COMPANY

Park Hill—A small mine. In excellent condition.

BROWNFIELD CONNELLSVILLE COKE COMPANY

Myers—In very good condition in every respect.

MAHONING COKE COMPANY

Mahoning—In very good condition as to ventilation and drainage.

KEYSTONE COAL AND COKE COMPANY

Greensburg No. 4.—A new mine opened this year. In excellent condition.

FRANKLIN COKE COMPANY

Leon—In good condition.

PEERLESS CONNELLSVILLE COKE COMPANY

Carolyn—Ventilation good. Drainage needs improvement.

COCHRAN BROTHERS

Spring Grove—A small mine. Nearly exhausted, but in good condition.

IMPROVEMENTS

H. C. FRICK COKE COMPANY

Adelaide—Built 1 permanent fireproof stopping.

Bitner—Built 5 permanent fireproof stoppings. Intalled one 10-ton Jeffrey electric locomotive.

Colonial No. 1.—Built 34 fireproof stoppings, also a fireproof underground pump room. Installed one 12-ton Jeffrey electric locomotive and one 35 H. P. horizontal duplex mine pump. Outside: Built 15 houses.

Colonial No. 3.—Installed electric haulage system with 20 ton tandem electric locomotive. Built fireproof motor room. Shaft bottom widened and 36 steel I beams placed to support the roof. Outside: Installed 2 Covington coke-drawing machines. Built 5 double houses.

Colonial No. 4.—Built 2 permanent fireproof overcasts, and 100 permanent fireproof stoppings. Water sprinkling system installed inside. Outside: Built a boiler and supply house. Rebuilt 216 coke ovens. Built 10 double houses.

Central—Built 30 permanent fireproof stoppings.

Davidson—Built 12 permanent fireproof stoppings. A fireproof underground engine house was constructed, and one 40 H. P. 500 volt stationary haulage engine installed therein. Two 36 inch concrete bulkheads, equipped with 10 inch bronze gates, were erected between this and the adjoining mine; and two 24 inch brick and cement bulkheads erected at old opening to prevent flooding of mine.

Juniata—Built 3 permanent fireproof overcasts and 28 permanent fireproof stoppings. Installed one 20 by 30 inch haulage engine, one 7-ton electric locomotive and 2 shortwall mining machines.

Leisenring No. 1.—Built 1 permanent fireproof overcast and 30 permanent fireproof stoppings.

Leisenring No. 3.—Built 18 permanent fireproof stoppings. Retimbered hoisting and air shafts. Bottom of air shaft secured with brick side walls and roof supported with steel I beams.

Southwest No. 1.—Built 2 permanent fireproof overcasts and 90 permanent fireproof stoppings. Outside: Installed 3 Covington coke-drawing machines.

Southwest No. 2.—Installed one 24 by 15 by 36 inch Lepley mine pump.

Southwest No. 3.—Built 4 permanent fireproof stoppings. Installed one 18 by 6 by 18 inch mine pump.

Trotter—Built 1 permanent fireproof overcast and 27 permanent fireproof stoppings. Constructed 1 inside fireproof wash-room for miners and a fireproof inside mine office. Built fireproof pump room in which was installed a mine pump of 2,000 gallons capacity. Erected a brick boiler house in which was installed two 150 H. P. tubular boilers. Installed one Franklin air compressor.

W. J. RAINEY

Elm Grove—Concrete entrance to manway constructed. Concrete walls built along creek for protection against mine flooding during high water.

Royal—Concrete mine stable constructed. Installed 6-ton electric locomotive. Outside: Passenger waiting room built at railroad station. Completed two-story brick store and office building, and built 12 houses.

WESTMORELAND COAL COMPANY

Magee—Built 31 permanent fireproof stoppings and 5 permanent fireproof overcasts. A brick and concrete inside pump room was built and an electric driven pump of 1,000 gallons capacity was installed therein. New fan shaft, 14 feet diameter, was sunk. Installed four 5-ton Goodman electric gathering locomotives, and two Goodman gas-proof shortwall machines. Haulage road extended 1,800 feet. Eleven 4-room houses constructed. Installed 2 Rust water tube boilers equipped with Murphy furnaces and coal bin.

YOUGHIOGHENY AND OHIO COAL COMPANY

Osborne No. 1.—Built 2 permanent fireproof overcasts and 42 permanent fireproof stoppings. Installed one 5-ton gathering electric locomotive; 200 mine cars; and one 8 by 10 inch mine pump. One 18 by 12 inch vertical triplex pump, with a 75 H. P. motor to operate it, was erected outside.

Osborne No. 2.—Built 6 permanent fireproof overcasts and 20 permanent fireproof stoppings. Installed three 5-ton electric gathering locomotives, one 13-ton hauling electric locomotive, and 200 mine cars. Outside: Installed one 325 H. P. McEwen engine and generator, two 150 H. P. 6 by 18 foot Erie tubular boilers, one 16 by 8 by 18 inch boiler feed pump, and one 75 H. P. slate-hauling motor.

PITTSBURGH AND ERIE COAL COMPANY

Sumner No. 2.—Built one permanent fireproof overcast and 70 permanent fireproof stoppings. Motor haulage extended 1,500 feet. Outside: Erected a 18 by 36 foot brick addition to the boiler house and installed therein one 150 H. P. tubular boiler.

WHYEL COKE COMPANY

Yukon—Built 1 permanent fireproof overcast, and 50 permanent fireproof stoppings. Installed three 5-ton Goodman gathering electric locomotives. Outside: Installed one motor generator set of Allis-Chalmers type, capacity 150 K. W. Built 34 beehive coke ovens.

MOUNT HOPE COKE COMPANY

Mount Hope—Built 20 permanent fireproof stoppings.

DUNBAR FURNACE COMPANY

(William Selfridge, Trustee in Bankruptcy)

Furnace No. 1.—Built 24 permanent fireproof stoppings, and drilled 12 inch bore hole for discharging water from the mine.

BROWNFIELD CONNELLSVILLE COKE COMPANY

Myers—Erected coal tipple for loading coal into railroad cars.

KEYSTONE COAL AND COKE COMPANY

Greensburg No. 4.—Built 5 permanent fireproof stoppings. Outside: Erected coal tipple, blacksmith shop, stable, warehouse and office.

COCHRAN BROTHERS

Spring Grove—Built chute to load coal into railroad cars.

PROSECUTIONS FOR VIOLATION OF THE MINING LAWS

January 20.—Anton Orlofsky, miner at Magee mine of Westmoreland Coal Company. Charge: Neglecting and refusing to notify John Leckuz that he was about to fire a blast. Plead not guilty. Verdict of jury, not guilty.

June 2.—Paul Milocheck, miner at Yukon mine of Whyel Coke Company. Charge: Opening a canister of powder with an open light on his head. Warrant issued, but defendant has so far avoided arrest.

June 2.—Rocco Agostin, miner at Adelaide mine of H. C. Frick Coke Company. Charge: Taking smokers' articles into mine worked exclusively with locked safety lamps. Plead guilty and paid costs.

June 2.—Guiseppe Pacino, miner at Adelaide mine of H. C. Frick Coke Company. Charge: Taking smokers' articles into mine worked exclusively with locked safety lamps. Plead guilty and paid costs.

June 25.—Tony Levardi, miner at Sumner No. 2 mine of Pittsburgh and Erie Coal Company. Charge: Crossing a danger board. Plead guilty and paid costs.

July 19.—Henry Rohland, shot firer at Davidson mine of H. C. Frick Coke Company. Charge: Neglect of duty in failing to erect a danger board at the entrance to a place where a shot had missed fire. Plead guilty in court and was sentenced to pay the costs.

August 26.—S. J. Hooper, assistant mine foreman at Colonial No. 1 mine of H. C. Frick Coke Company. Charge: Drunkenness. Citation issued, but defendant has so far avoided the service of papers on him.

September 9.—Joseph Fell, miner at Sumner No. 2 mine of Pittsburgh and Erie Coal Company. Charge: Using combustible material for tamping. Plead guilty and paid costs.

September 9.—Joseph Shema, miner at Sumner No. 2 mine of Pittsburgh and Erie Coal Company. Charge: Using combustible material for tamping. Plead guilty and paid costs.

September 11.—Andrew Nair, fire boss at Central mine of H. C. Frick Coke Company. Charge: Neglect of duty in failing to examine Room No. 10 on No. 9 Flat Left in said mine. Plead guilty in court and was sentenced to pay a fine of $5.00 and costs.

September 11.—Peter Kaitalia, miner at Magee mine of Westmoreland Coal Company. Charge: Opening a canister of black powder with an open light on his head. Plead guilty in court and sentenced to pay a fine of $5.00 and costs.

November 18.—Charles A. Wilson, mine foreman at Leon mine of Franklin Coke Company. Charge: Permitting coal to the blasted from the solid when workmen were in the mine. Plead guilty and paid costs.

December 3.—George Robinson, miner at Colonial No. 4 mine of H. C. Frick Coke Company Charge: Tampering with signal apparatus at shaft. Plead guilty after being confined, pending hearing, and paid costs.

MINE FOREMEN'S, ASSISTANT MINE FOREMEN'S AND FIRE BOSSES' EXAMINATIONS

The annual examination of applicants for certificates of qualification as mine foremen, assistant mine foremen and fire bosses was held in the State Armory, Connellsville, May 6, 7 and 8. The Board of Examiners was composed of P. J. Walsh, Inspector; D. R. DePriest, Superintendent, and James Conway, Miner.

There were 24 applicants for certificates of qualification as mine foremen, 24 applicants for certificates of qualification as assistant mine foremen, and 43 applicants for certificates of qualification as fire bosses.

The following persons passed a satisfactory examination and were granted certificates:

MINE FOREMEN

First Grade

Isaac L. Davis, Dunbar; Andrew Guidas, Hunker; William E. Mitchell, Grindstone.

ASSISTANT MINE FOREMEN

Joseph Burns, Leisenring; Milton Wheeler, Royal; Elmer Swink, Adelaide; Edward J. Rowan, Vanderbilt; Thomas Fazenbaker, Everson; John Metcalfe, Braznell.

FIRE BOSSES

Joseph P. Brown, Albert Wagner, Peter Coval, John W. Tedrow, Connellsville; John Bales, Henry Keffer, Robert McLaughlin, Joseph A. Greaves, Robert Pinkney, Dunbar; Edward Arnett, Edward Dunlap, Ralph E. Goe, Vanderbilt; John Geisler, John H. Brown, Broadford; Joseph Salter, Frank Beranek, Tarr; Patrick Murphy, Elm Grove; Edward Burns, Yukon; William H. Thomas, Uniontown; William Welling, Royal; Andrew J. Miller, Trotter; Edward L. Brindlinger, Everson; George Laughrey, Grindstone.

* * *

TENTH DISTRICT

CAMBRIA AND BLAIR COUNTIES

Altoona, Pa., February 16, 1914.

Hon. James E. Roderick, Chief of Department of Mines:

Sir: In compliance with the Act of Assembly of June 9, 1911, I herewith transmit my annual report of the Tenth Bituminous District for the year ending December 31, 1913.

The comparison of the number of fatal accidents with the number of persons employed and per million tons of coal produced shows a very favorable improvement over that of previous years.

Respectfully submitted,

JOSEPH WILLIAMS, Inspector.

SUMMARY OF STATISTICS

Number of mines,	58
Number of mines in operation,	56
Number of tons of coal shipped to market,	4,425,541
Number of tons used at mines for steam and heat,	109,289
Number of tons sold to local trade and used by employes,	40,645
Number of tons used in the manufacture of coke,	476,106
Number of tons of coal produced,	5,051,581
Number of tons of coke produced,	320,866
Number of coke ovens,	1,217
Number of coke ovens in operation,	....
Number of tons of coal produced by pick mining,	2,346,764
Number of tons produced by compressed air machines,	550,204
Number of tons produced by electrical machines,	2,154,613
Number of persons employed inside of mines,	5,918
Number of persons employed outside, including coke workers,	857
Number of persons employed at manufacture of coke,	192
Number of fatal accidents inside of mines,	5
Number of fatal accidents outside,	....
Number of non-fatal accidents inside of mines,	53
Number of non-fatal accidents outside,	4
Number of tons of coal produced per fatal accident inside,	1,010,316
Number of tons produced per fatal accident outside,	....
Number of tons produced per fatal accident inside and outside,	1,010,316
Number of persons employed per fatal accident inside,	1,184
Number of persons employed per fatal accident outside.	....
Number of persons employed per fatal accident inside and outside,	1,355
Number of persons employed per non-fatal accident inside,	112
Number of persons employed per non-fatal accident outside,	214
Number of persons employed per non-fatal accident inside and outside,	119
Number of wives made widows,	4
Number of children made orphans,	7
Number of steam locomotives used inside of mines,	....
Number of steam locomotives used outside,	8
Number of compressed air locomotives used inside,	....
Number of compressed air locomotives used outside,	....
Number of electric motors used inside,	73
Number of electric motors used outside,	....
Number of gasoline locomotives used inside,	....
Number of fans in use,	44
Number of furnaces in use,	15
Number of gaseous mines in operation,	5
Number of non-gaseous mines in operation,	51
Number of new mines opened,	3
Number of old mines abandoned,	1

TABLE A

PRODUCTION OF COAL

Names of Operators	Tons
Pennsylvania Coal and Coke Corporation,	803,780
Commercial Coal Mining Company,	453,552
Vinton Colliery Company,	428,101
Sonman Shaft Coal Company,	318,260
W. H. Piper and Company,	277,687
Shoemaker Coal Mining Company,	246,909
Taylor and McCoy Coal and Coke Company,	216,174
Nant-Y-Glo Coal Mining Company,	213,470
Altoona Coal and Coke Company,	212,153
Tunnel Coaling Company,	205,868
F. P. McFarland,	189,437
Cardiff Coal Company,	183,004
Big Bend Coal Mining Company,	159,081
Lincoln Coal Company,	152,601
Springfield Coal Mining Company,	148,365
Glen White Coal and Lumber Company,	132,399
Lilly Coal Company and W. H. Hughes,	128,715
Estep Brothers Coal Mining Company,	101,141
Juniata Coal Company,	59,600
W. H. Hughes and Company,	56,550
Anderson Coal Mining Company,	39,619
Leahey Coal Mining Company,	38,992
Bear Rock Coal Company,	38,648
John A. Leap,	30,314
Standard Coal Company,	28,570
Leap Coal Mining Company,	21,731
James Harris and Sons,	21,345
Sugar Run Coal Mining Company,	20,475
T. C. Harding,	18,239
Robert Smith Coal Mining Company,	15,946
Richland Coal and Mining Company,	14,325
Henderson, Hughes and Company,	11,812
Bens-Creek Sonman Coal Company,	10,297
F. X. Bradley,	6,820
Bens-Creek Coal Mining Company,	5,379
George Mazenko,	4,677
Loudon and Page,	3,789
Dexcar Coal Mining Company,	16,302
Fallen Timber Coal Company,	17,454
Total,	5,051,581

Production by Counties

Cambria,	4,653,139
Blair,	398,442
Total,	5,051,581

TABLE B.—Fatal and non-fatal accidents inside and outside of mines; number of tons of coal produced per accident; number of persons employed; number employed per accident

Names of Operators	Fatal Accidents			Non-Fatal Accidents			Tons of coal produced per fatal accident inside	Tons of coal produced per non-fatal accident inside	Number of employes inside	Number of employes outside	Total number of employes	Number of employes inside per fatal accident	Number of employes outside per fatal accident	Number of employes inside per non-fatal accident	Number of employes outside per non-fatal accident
	Inside	Outside	Total	Inside	Outside	Total									
Pennsylvania Coal and Coke Corporation,	......	......	......	9	2	11	....	80,309	996	159	1,155	....	....	111	80
Commercial Coal Mining Co.,	1	......	1	13	......	13	453,552	34,889	461	65	526	461	....	35	......
Vinton Colliery Co.,	......	......	......	......	1	1	....	....	468	115	583	....	....	....	115
Sonman Shaft Coal Co.,	1	......	1	7	......	7	318,260	45,466	422	36	458	422	....	60	......
Shoemaker Coal Mining Co.,	......	......	......	3	......	3	....	82,303	232	15	247	....	....	77	......
Taylor and McCoy Coal and Coke Co.,	......	......	......	1	......	1	....	216,174	265	84	349	....	....	265	......
Nant-Y-Glo Coal Mining Co.,	......	......	......	1	......	1	....	213,470	229	22	251	....	....	229	......
Altoona Coal and Coke Co.,	......	......	......	2	......	2	....	106,077	246	34	280	....	....	123	......
Tunnel Coaling Co.,	......	......	......	2	......	2	....	102,934	204	30	234	....	....	102	......
F. P. McFarland,	1	......	1	1	1	2	189,437	189,437	271	42	313	271	....	271	42
Cardiff Coal Co.,	......	......	......	3	......	3	....	61,001	152	16	168	....	....	51	......
Big Bend Coal Mining Co.,	1	......	1	2	......	2	159,061	79,541	154	9	163	154	....	77	......
Lincoln Coal Co.,	......	......	......	2	......	2	....	76,301	136	14	150	....	....	68	......
Springfield Coal Mining Co.,	1	......	1	3	......	3	148,365	49,455	105	19	124	105	....	35	......
Glen White Coal and Lumber Co.,	......	......	......	1	......	1	....	132,399	128	33	161	....	....	128	......
Lilly Coal Co. and W. H. Hughes,	......	......	......	1	......	1	....	128,715	251	32	283	....	....	251	......
Leahey Coal Mining Co.,	......	......	......	1	......	1	....	38,992	51	10	61	....	....	51	......
Bear Rock Coal Co.,	......	......	......	1	......	1	....	38,648	58	9	67	....	....	58	......
Miscellaneous Companies,	......	......	......	......	......	.....	....	....	1,089	113	1,202	....	....	....	......
Totals and averages for district,	5	......	5	52	4	57	1,010,316	95,313	5,918	857	6,775	1,184	....	112	214

TABLE C.—Classification of Fatal Accidents Inside and Outside of Mines

	Months													
	January	February	March	April	May	June	July	August	September	October	November	December	Totals	Percentages
Causes of Accidents Inside														
Falls of coal,	....	....	1	....	....	....	....	....	....	....	....	....	1	20.00
Falls of roof,	....	1	....	1	....	....	....	....	....	....	....	....	2	40.00
Mine cars,	....	....	....	....	....	....	....	....	....	1	....	....	1	20.00
Electricity,	....	....	....	....	....	....	....	....	....	1	....	....	1	20.00
Totals,	....	1	1	1	....	....	....	....	....	2	....	....	5	100.00
Causes of Accidents Outside (No Accidents)														

TABLE D.—Classification of Non-Fatal Accidents Inside and Outside of Mines

	Months													
	January	February	March	April	May	June	July	August	September	October	November	December	Totals	Percentages
Causes of Accidents Inside														
Falls of coal,	....	1	....	....	....	....	4	2	2	....	1	....	10	18.87
Falls of slate,	1	....	....	....	....	....	....	2	....	....	1	....	4	7.55
Falls of roof,	1	....	1	....	1	....	....	1	1	1	1	....	7	13.21
Mine cars,	....	1	1	1	6	1	2	3	....	1	3	4	23	43.39
Explosions of powder and dynamite,	1	....	....	....	....	....	....	1	....	....	....	....	2	3.77
Blasts, premature and otherwise,	....	....	1	....	....	....	....	1	....	....	....	....	2	3.77
Machinery,	....	2	....	....	....	....	....	....	....	....	....	....	2	3.77
Burned by gasoline,	1	....	....	....	....	....	....	....	....	....	....	....	1	1.89
Struck by axe,	....	....	....	....	....	....	1	....	....	....	....	....	1	1.89
Struck by rope,	....	....	....	....	....	....	....	....	....	....	1	....	1	1.89
Totals,	4	4	3	1	7	1	7	10	3	2	7	4	53	100.00
Causes of Accidents Outside														
Cars,	....	1	....	....	....	1	....	....	....	....	1	....	3	75.00
Struck by piece of wood,	1	....	....	....	....	....	....	....	....	....	....	....	1	25.00
Totals,	1	1	....	....	....	1	....	....	....	....	1	....	4	100.00
Grand totals inside and outside,	5	5	3	1	7	2	7	10	3	2	8	4	57	......

TABLE E.—Occupations of Persons Killed or Fatally Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
Inside													
Miners,	....	....	1	1	....	....	....	....	....	2	....	....	4
Machine scrapers,	....	1	....	....	....	....	....	....	....	....	....	....	1
Totals,	....	1	1	1	....	....	....	....	....	2	....	....	5
Outside (No Accidents)													

TABLE F.—Occupations of Persons Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
Inside													
Miners,	4	2	2	....	5	....	6	7	2	1	3	2	34
Machine runners,	....	....	....	....	....	....	....	1	....	....	....	....	1
Machine scrapers,	....	....	....	....	....	....	....	1	....	....	....	....	1
Drivers and runners,	....	1	1	1	....	1	1	1	....	....	1	1	8
Doorboys and helpers,	....	....	....	....	....	....	....	....	....	1	....	....	1
Company men,	....	....	....	....	1	....	....	....	1	....	....	....	2
Engineers,	....	1	....	....	....	....	....	....	....	....	....	....	1
Motormen,	....	....	....	....	1	....	....	....	....	....	1	....	2
Tripriders,	....	....	....	....	....	....	....	....	....	....	1	....	1
Laborers,	....	....	....	....	....	....	....	....	....	....	1	....	1
Hooker-on,	....	....	....	....	....	....	....	....	....	....	....	1	1
Totals,	4	4	3	1	7	1	7	10	3	2	7	4	53
Outside													
Coke employes,	....	1	....	....	....	....	....	....	....	....	....	....	1
Oilers,	....	....	....	....	....	....	....	....	....	....	1	....	1
Company men,	1	....	....	....	....	1	....	....	....	....	....	....	2
Totals,	1	1	....	....	....	1	....	....	....	....	1	....	4
Grand totals inside and outside,	5	5	3	1	7	2	7	10	3	2	8	4	57

TABLE G.—Nationality of Persons Killed or Fatally Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
Hungarian,	....	1	....	....	....	....	....	....	....	....	....	....	1
Slavonian,	....	....	1	....	....	....	....	....	....	....	....	....	1
Lithuanian,	....	....	....	....	....	....	....	....	....	1	....	....	1
Austrian,	....	....	....	1	....	....	....	....	....	....	....	....	1
Magyar,	....	....	....	....	....	....	....	....	....	1	....	....	1
Totals,	....	1	1	1	....	....	....	....	....	2	....	....	5

TABLE H.—Nationality of Persons Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
American,	1	3	1	1	2	....	1	1	1	1	2	1	15
English,	....	....	....	....	....	1	....	1	....	....	1	1	4
German,	....	....	....	....	....	1	....	....	....	....	....	....	1
Polish,	1	2	....	....	....	....	....	1	....	1	2	....	7
Hungarian,	....	....	....	....	....	....	5	....	....	....	1	1	7
Italian,	1	....	2	....	....	....	....	2	2	....	....	....	7
Slavonian,	2	....	....	....	....	....	1	5	....	....	2	....	10
Austrian,	....	....	....	....	1	....	....	....	....	....	....	....	1
Russian,	....	....	....	....	4	....	....	....	....	....	....	1	5
Totals,	5	5	3	1	7	2	7	10	3	2	8	4	57

TABLE I.—Operators and mines, kind of openings, type and size of fans, size of furnaces, volume of air produced by fan or furnace per minute, number of splits of air cur rents and number of persons employed inside

Names of Operators and Mines	Kind of opening	Gaseous or non-gaseous	Method of ventilation	Diameter of fan in feet and inches	Width of blades in feet and inches	Depth of blades in feet and inches	Number of revolutions per minute	Water gauge developed—in inches	Name of fan	Power used	Area of furnace bars in square feet	Number of splits of air currents	Number of cubic feet of air per minute entering the mine at inlet	Total number of cubic feet of air per minute circulating in all the splits	Number of cubic feet of air per minute passing out at outlet	Number of persons employed inside
Pennsylvania Coal and Coke Corporation																
Pennsylvania No. 1, ...	Drift, ...	Non-gas., .	Fan, ...	7.0	2.0	2.6	280	0.4	Stine, ...	Electricity, .	..	1	14,420	11,000	15,300	22
Pennsylvania No. 7, ...	Drift, ...	Gaseous, ..	Fan, ...	16.0	4.5	4.0	110	1.7	Vulcan, .	Electricity.	..	4	42,100	28,600	44,000	137
Pennsylvania No. 9, ...	Shaft, ...	Non-gas., .	Fan, ...	6.0	4.3	2.5	250	2.5	Robinson,	Steam, ...	..	5	54,260	23,280	55,900	201
Pennsylvania No. 10, ...	Slope, ...	Non-gas., .	Fan, ...	20.0	5.0	5.0	110	4.0	Vulcan, ..	Steam, ...	..	7	105,200	82,300	116,100	370
Pennsylvania No. 14, ...	Drift, ...	Non-gas., .	Fan, ...	12.0	5.0	4.0	130	2.0	Stine, ...	Electricity, .	..	3	55,000	36,000	57,800	194
Pennsylvania No. 16,*	Slope, ...	Gaseous, ..	Fan, ...	7.0	2.0	2.6	275	0.5	Stine, ...	Electricity, .	..	1	....	....	....	......
Pennsylvania No. 19, ...	Slope, ...	Non-gas., .	Fan, ...	13.0	4.2	3.0	75	0.5	Brazil, ...	Steam, ...	..	1	31,000	25,000	33,000	72
Commercial Coal Mining Co.																
Commercial No. 3,†	Slope, ...	Non-gas., .	Fan, ...	10.0	4.0	4.0	250	5.0	Stevens, .	Electricity, .	..	4	75,000	45,150	120,000	325
Commercial No. 4, ...	Slope, ...	Non-gas., .	Fan, ...	8.0	4.0	4.0	262	2.5	Robinson,	Electricity, .	..	2	80,000	21,600	‡47,000	
Commercial No. 5, ...	Drift, ...	Non-gas., .	Fan, ...	7.0	1.8	3.0	300	0.5	Stine, ...	Electricity, .	..	2	28,000	21,000	29,000	136
Vinton Colliery Co.																
Vinton No. 1, ...	Drift, ...	Non-gas., .	Fan, ...	8.5	5.0	0.5	150	2.5	Sirocco, ..	Electricity, .	..	8	91,100	65,000	96,100	187
Vinton No. 3, ...	Drift, ...	Non-gas., .	Fan, ...	10.0	5.6	4.0	150	1.3	Robinson,	Steam, ...	..	1	44,500	27,000	46,000	65
Vinton No. 6, ...	Slope, ...	Gaseous, ..	Fan, ...	5.0	4.0	0.3	300	1.5	Sirocco, ..	Electricity, .	..	4	73,000	48,000	75,000	216
Sonman Shaft Coal Co.																
Sonman Shaft, ...	Shaft, ...	Non-gas., .	Fan, ...	12.0	5.0	1.6	100	1.5	Jeffrey, ..	Steam, ...	..	8	85,000	36,000	90,000	321
Sonman Slope, ...	Slope, ...	Gaseous, ..										2	26,760	15,000	28,000	101

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*Idle during the year.
†Employes included in Commercial No. 4.
‡Inlet air escapes through broken strata.

W. H. Piper and Co.																
Souman No. 2, ...	Slope, ...	Non-gas., .	Fan, ...	9.0	3.0	1.3	120	1.0	Clifford, ..	Electricity, .	..	4	33,000	62,880	90,310	257
Sonman No. 4, ...	Drift, ...	Non-gas., .	Furnace, ..								36	1	10,000	8,000	10,120	35
Shoemaker Coal Mining Co.																
Wilmore No. 1, ...	Drift.	Non-gas.,	Fan, ...	16.0	4.0	4.0	105	1.2	Brazil, ...	Steam, ...	..	4	35,000	40,000	33,000	232
Taylor and McCoy Coal and Coke Co.																
Gallitzin Shaft, ...	Shaft, ...	Non-gas., .	Fan, ...	20.0	8.0	4.0	60	2.5	Connellsville, ...	Steam, ...	..	3	47,600	42,000	52,000	265
Nant-Y-Glo Coal Mining Co.																
Nant-Y-Glo No. 1, ...	Drift, ...	Non-gas., .	Fan, ...	10.0	3.0	3.2	150	1.5	Capell, ...	Electricity, .	..	4	78,000	44,000	79,000	229
Altoona Coal and Coke Co.																
Delaney No. 5, ...	Slope, ...	Non-gas., .	2 Fans, . }	15.0 3.6	4.0 3.0	3.6 1.6	120 575	2.4 2.4	Brazil, ... Robinson,	Steam, ... Electricity, .	.. ..	3 ..	66,000	60,000	67,000	236 ......
Horseshoe, ...	Drift, ...	Non-gas., .	Furnace, ..	......	......	......	......	......	....	....	36	2	8,000	8,000	8,100	10
Tunnel Coaling Co.																
Tunnel No. 1, ...	Drift, ...	Non-gas., .	2 Fans, ...	{7.0 {8-0	2.0 2.2	2.3 3.0	200 250	0.4 0.4	Stine, ... Stine, ...	Electricity, . Electricity, .	.. ..	3 ..	50,000	31,000	53,000	204 ......
Tunnel No. 2,*	Drift, ...	Non-gas., .	Furnace, ..	......	......	......	......	......	....	....	36	..	....	....	....	......
F. P. McFarland																
Dean No. 8, ...	Slope, ...	Non-gas., .	Fan, ...	12.0	3.5	3.5	75	1.0	Brazil, ...	Steam, ...	..	1	16,000	7,800	16,500	50
Dean No. 10, ...	Drift, ...	Non-gas., .	Fan, ...	12.0	3.5	3.5	126	1.0	Brazil, ...	Steam, ...	..	2	26,000	22,000	28,000	221
Cardiff Coal Co.																
Cardiff No. 1, ...	Drift, ...	Gaseous, ..	Fan, ...	5.5	2.9	4.6	375	1.5	Robinson,	Steam, ...	..	3	70,000	48,000	72,300	152
Big Bend Coal Mining Co.																
Nonpareil No. 1, ...	Drift, ...	Non-gas., .	Fan, ...	10.0	2.5	4.0	255	4.0	Jeffrey, ..	Electricity, .	..	2	75,000	49,000	31,000	154
Lincoln Coal Co.																
Lincoln No. 1, ...	Drift, ...	Non-gas., .	Fan, ...	10.0	2.0	5.0	140	2.5	Jeffrey, ..	Steam, ...	..	3	62,000	25,000	65,000	136
Springfield Coal Mining Co.																
Springfield No. 1, ...	Slope, ...	Gaseous, ..	Fan, ...	8.0	3.0	3.5	120	1.7	Brazil, ...	Steam, ...	..	3	36,000	22,200	37,000	105
Glen White Coal and Lumber Co.																
Glen White No. 1,*	Drift, ...	Non-gas., .	Furnace, ..	......	......	......	......	......	....	....	36	..	....	....	....	......
Glen White No. 2, ...	Slope, ...	Non-gas., .	Fan, ...	16.0	6.0	4.0	70	1.0	Stine, ...	Steam, ...	..	3	33,000	27,000	42,000	128
Lilly Coal Co. and W. H. Hughes																
Lilly No. 2, ...	Drift, ...	Non-gas., .	Fan, ...	20.0	7.0	5.0	75	1.0	Brazil, ...	Steam, ...	..	2	35,000	30,000	36,000	147
Lilly No. 3, ...	Slope, ...	Non-gas., .	Fan, ...	7.0	3.0	3.0	200	1.0	Clifford, ..	Electricity, .	..	3	66,000	40,000	67,500	104
Estep Brothers Coal Mining Co.																
Ivory Hill, ...	Slope, ...	Non-gas., .	Fan, ...	7.0	2.0	2.7	180	0.3	Stine, ...	Steam, ...	..	1	23,700	20,000	29,900	107

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*Idle during the year.

TABLE I.—Continued

Names of Operators and Mines	Kind of opening	Gaseous or non-gaseous	Method of ventilation	Diameter of fan in feet and inches	Width of blades in feet and inches	Depth of blades in feet and inches	Number of revolutions per minute	Water gauge developed—in inches	Name of fan	Power used	Area of furnace bars in square feet	Number of splits of air currents	Number of cubic feet of air per minute entering the mine at inlet	Total number of cubic feet of air per minute circulating in all the splits	Number of cubic feet of air per minute passing out at outlet	Number of persons employed inside
Juniata Coal Co.																
Juniata No. 1, ...	Drift, ...	Non-gas., .	Fan, ...	7.0	2.0	2.7	340	0.7	Stine, ...	Electricity, .	..	1	30,000	9,000	††11,250	77
Juniata No. 3, ...	Drift, ...	Non-gas., .	Fan, ...	12.0	3.5	3.3	50	0.4	Brazil, ...	Steam, ...	..	1	15,000	11,000	15,200	18
W. H. Hughes and Co.																
Hughes No. 2, ...	Slope, ...	Non-gas., .	Fan, ...	10.0	2.5	4.0	185	0.5	Stine, ...	Electricity, .	..	1	18,375	4,400	22,680	76
Anderson Coal Mining Co.																
Peerless No. 1, ...	Drift, ...	Non-gas., .	Furnace, ..	......	......	......	......	......	....	....	42	1	7,000	5,400	7,200	30
Peerless No. 2, ...	Drift, ...	Non-gas., .	Furnace, ..	......	......	......	......	......	....	....	42	1	11,000	8,500	11,350	8
Leahey Coal Mining Co.																
Moshannon No. 2, ...	Slope, ...	Non-gas., .	Fan, ...	7.0	2.0	2.8	150	0.4	Stine, ...	Steam, ...	..	1	16,400	6,200	17,120	51
Bear Rock Coal Co.																
Bear Rock No. 1, ...	Drift, ...	Non-gas., .	Fan, ...	7.0	2.0	2.5	160	0.3	Stine, ...	Steam, ...	..	1	11,400	6,000	11,500	58
John A. Leap																
Plane, ...	Drift, ...	Non-gas., .	Furnace, ..	......	......	......	......	......	....	....	25	1	7,000	6,000	7,500	44
Standard Coal Co.																
Standard No. 1, ...	Drift, ...	Non-gas., .	Fan, ...	12.0	4.0	3.0	100	1.0	Brazil, ...	Steam, ...	..	1	20,000	8,000	22,000	43
Leap Coal Mining Co.																
Leap No. 1, ...	Drift, ...	Non-gas., .	Fan, ...	12.0	2.8	4.0	30	......	Stine, ...	Steam, ...	..	1	9,000	6,000	9,150	41

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††Inlet air escapes through broken strata.

James Harris and Sons Harris No. 1, ...	Drift, ...	Non-gas., .	Furnace, ..	......	......	....	......	......	....	....	25	1	4,800	4,000	5,000	26
Sugar Run Coal Mining Co. Ajax No. 1, ...	Drift, ...	Non-gas., .	Furnace, ..	......	......	......	......	......	....	....	35	1	11,750	7,000	12,000	28
T. C. Harding Beaver Dam, ...	Drift, ...	Non-gas., .	Furnace, ..	......	......	......	......	......	....	....	42	1	3,800	3,800	4,000	23
Robert Smith Coal Mining Co. Kokomo, ...	Drift, ...	Non-gas.,	Furnace, ..	......	......	......	......	......	....	....	20	1	11,000	6,500	11,300	18
Richland Coal and Mining Co. Superior Nos. 4 and 6, ...	Drift, ...	Non-gas., .	Fan, ...	10.0	3.6	3.0	85	0.3	Brazil, ...	Steam, ...	..	2	17,000	4,500	17,200	23
Henderson, Hughes and Co. Big Bend No. 6, ...	Drift, ...	Non-gas., .	Fan, ...	5.0	2.0	2.0	70	0.2	Stine, ...	Steam, ...	..	1	3,500	2,500	3,575	57
Bens-Creek Sonman Coal Co. Bens-Creek Shaft, ...	Shaft, ...	Non-gas., .	Fan, ...	16.0	5.0	5.6	60	0.5	Brazil, ...	Steam, ...	..	2	18,000	1,000	18,300	21
F. X. Bradley Bradley No. 1, ...	Drift, ...	Non-gas., .	Furnace, ..	......	......	......	......	......	....	....	30	..	7,200	3,500	7,300	11
Bens-Creek Coal Mining Co. Maple Ridge, ...	Drift, ...	Non-gas., .	Furnace, ..	......	......	......	......	......	....	....	20	1	8,000	8,000	8,000	14
George Mazenko Flinton No. 1, ...	Drift, ...	Non-gas., .	Furnace, ..	......	......	......	......	......	....	....	36	1	7,200	5,500	7,300	6
Loudon and Page Russet No. 1, ...	Drift, ...	Non-gas., .	Furnace, ..	......	......	......	......	......	....	....	24	1	8,000	7,000	8,100	15
Dexcar Coal Mining Co. Claire, ...	Slope, ...	Non-gas., .	Fan, ...	14.0	4.0	4.5	65	0.3	Brazil. ...	Steam, ...	..	1	14,000	10,000	14,120	76
Fallen Timber Coal Co. Fallen Timber No. 1, ...	Drift, ...	Non-gas., .	Furnace, ..	......	......	......	......	......	....	....	48	2	10,500	6,800	11,000	85

TABLE J.—Mines using coal cutting machines, power used, geological and local names of seams, thickest and thinnest seams where machines are used, and the approximate number of tons produced by machines

Names of Operators	Names of Mines	Kind of opening	Gaseous or non-gaseous	Number of mining machines used	Power used by machines	Geological and local names of seams	Average thickness in inches	Height of Seam in Inches		Approximate number of tons produced by machines
								Thickest	Thinnest	
Pennsylvania Coal and Coke Corporation, ...	Pennsylvania No. 7, ...	Drift, ...	Gaseous, ..	6	Electricity, ...	E or Lemon,	52	56	40	118,434
	Pennsylvania No. 9, ...	Shaft, ...	Non-gas., .	10	Electricity, ...	E or Lemon,	48	56	40	115,453
						B or Miller,	30	33	24	....
	Pennsylvania No. 10, ...	Slope, ...	Non-gas., .	22	Electricity, ...	E or Lemon,	57	60	48	350,555
	Pennsylvania No. 14, ...	Drift, ...	Non-gas., .	30	Compressed air, ..	B or Miller,	44	49	42	99,449
Totals, ...	....	....	....	68	....	....	..	......	......	683,891
Commercial Coal Mining Co., ...	Commercial No. 3, ...	Slope, ...	Non-gas., .	17	Electricity, ...	B or Miller,	45	48	42	118,393
	Commercial No. 4, ...	Slope, ...	Non-gas., .							
	Commercial No. 5, ...	Drift, ...	Non-gas., .	9	Electricity, ...	B or Miller,	45	48	42	149,115
Totals, ...	....	....	....	26	....	....	......	......	......	267,508
Vinton Colliery Co., ...	Vinton No. 1, ...	Drift, ...	Non-gas., .	12	Electricity, ...	B or Miller,	42	46	40	130,001
	Vinton No. 3, ...	Drift, ...	Non-gas., .	18	Compressed air, ..	B or Miller,	42	46	40	71,728
	Vinton No. 6, ...	Slope, ...	Gaseous, ..	9	Electricity, ...	B or Miller,	42	46	38	193,721
Totals, ...	....	....	....	39	....	....	......	......	......	395,450
Sonman Shaft Coal Co., ...	Sonman Slope, ...	Slope, ...	Gaseous, ..	6	Electricity, ...	E or Lemon,	48	54	36	70,000
Taylor and McCoy Coal and Coke Co., ...	Gallitzin Shaft, ...	Shaft, ...	Non-gas., .	6	Electricity, ...	E or Lemon,	48	50	46	164,736
Nant-Y-Glo Coal Mining Co., ...	Nant-Y-Glo No. 1, ...	Drift, ...	Non-gas., .	30	Compressed air, ..	B or Miller,	44	49	42	175,024

Altoona Coal and Coke Co.,	Delaney No. 5,	Slope,	Non-gas.,	7	Electricity,	E or Lemon,	42	46	36	152,446
Tunnel Coaling Co.,	Tunnel No. 1,	Drift,	Non-gas.,	7	Electricity,	E or Lemon,	50	52	48	158,458
Cardiff Coal Co.,	Cardiff No. 1,	Drift,	Gaseous,	8	Electricity,	B or Miller,	42	48	38	141,888
Big Bend Coal Mining Co.,	Nonpareil No. 1,	Drift,	Non-gas.,	17	Electricity,	B or Miller,	44	46	42	159,081
Lincoln Coal Co.,	Lincoln No. 1,	Drift,	Non-gas.,	4	Electricity,	B or Miller,	42	47	36	182,337
Springfield Coal Mining Co.,	Springfield No. 1,	Slope,	Gaseous,	12	Compressed air,	B or Miller,	46	48	36	131,558
Glen White Coal and Lumber Co.,	Glen White No. 2,	Slope,	Non-gas.,	4	Compressed air,	E or Lemon,	48	48	48	72,445
Grand totals,				234						2,704,817

TABLE 1.—Operators, Location of Mines, Railroads, etc.

Names of Operators and Mines	County	Name of General Superintendent	Post Office	Name of Superintendent	Post Office	Railroad to Mine
Pennsylvania Coal and Coke Corporation						
Pennsylvania No. 1,	Cambria,			R. D. Mainwaring,	Cresson,	Pennsylvania
Pennsylvania No. 7,						Pennsylvania
Pennsylvania No. 9,						Pennsylvania
Pennsylvania No. 10,						Pennsylvania
Pennsylvania No. 14,						Pennsylvania
Pennsylvania No. 16,*						N. Y. C.
Pennsylvania No. 19,	Blair,					Pennsylvania
Commercial Coal Mining Co.						
Commercial Nos. 3, 4 and 5,	Cambria,	W. C. Smith,	Expedit,			Pennsylvania
Vinton Colliery Co.						
Vinton No. 1,	Cambria,	T. W. Hamilton,	Vintondale,			Pennsylvania
Vinton No. 3,						Pennsylvania
Vinton No. 6,						Pennsylvania and B. R. and P.
Sonman Shaft Coal Co.						
Sonman Shaft,	Cambria,	James B. Neale,	Minersville,	James Strachan,	Sonman,	Pennsylvania
Sonman Slope,						
W. H. Piper and Co.						
Sonman Nos. 2 and 4,	Cambria,	Joseph Appleyard,	Lilly,	Joseph Appleyard,	Lilly,	Pennsylvania
Shoemaker Coal Mining Co.						
Wilmore No. 1,	Cambria,	T. T. Shoemaker,	Philadelphia,	William Brown,	Sonman,	Pennsylvania
Taylor and McCoy Coal and Coke Co.						
Gallitzin Shaft,	Cambria,	F. D. McNellis,	Gallitzin,			Pennsylvania
Nant-Y-Glo Coal Mining Co.						
Nant-Y-Glo No. 1,	Cambria,	C. E. Sharpless,	Cresson,			Pennsylvania
Altoona Coal and Coke Co.						
Delaney No. 5,	Cambria,			John L. Munro,	Coupon,	Pennsylvania
Horseshoe,	Blair,					

*Idle during the year.

Tunnel Coaling Co. Tunnel Nos. 1 and 2,*	Blair,	M. J. Bracken,	Gallitzin,	M. J. Bracken,	Gallitzin,	Pennsylvania
F. P. McFarland Dean Nos. 8 and 10,	Cambria,	H. L. Binnix,	Frugality,	H. L. Binnix,	Frugality,	Pennsylvania
Cardiff Coal Co. Cardiff No. 1,	Cambria,	M. J. Bracken,	Gallitzin,	James Walker,	Nettleton,	Pennsylvania
Big Bend Coal Mining Co. Nonpareil No. 1,	Cambria,	J. W. Harrison,	Expedit,	J. W. Harrison,	Expedit,	Pennsylvania
Lincoln Coal Co. Lincoln No. 1,	Cambria,			J. E. Burns,	Nant-Y-Glo,	Pennsylvania
Springfield Coal Mining Co. Springfield No. 1,	Cambria,	Enoch Bellis,	Ebensburg,	James Caldwell,	Nant-Y-Glo,	Pennsylvania
Glen White Coal and Lumber Co. Glen White Nos. 1* and 2,	Blair,	F. D. McNellis,	Gallitzin,			Pennsylvania
Lilly Coal Co. and W. H. Hughes Lilly Nos. 2 and 3,	Cambria,	William Hahman,	Altoona,	W. E. Richards,	Lilly,	Pennsylvania
Estep Brothers Coal Mining Co. Ivory Hill.	Cambria,	T. A. Estep,	Ebensburg,	H. C. Estep,	Nant-Y-Glo,	Pennsylvania
Juniata Coal Co. Juniata Nos. 1 and 3,	Cambria,	John Phillips,	Alexandria,	A. P. Hite,	Lilly,	Pennsylvania
W. H. Hughes and Co. Hughes No. 2,	Cambria,	W. H. Hughes,	Altoona,	George Hassenphlug,	Lilly,	Pennsylvania
Anderson Coal Mining Co. Peerless Nos. 1 and 2,	Cambria,	E. K. Dunbar,	Boston, Mass.,	A. L. Friend,	Fallen Timber,	Pennsylvania
Leahey Coal Mining Co. Moshannon No. 2,	Cambria,	Thomas Leahey,	Lilly,			Pennsylvania
Bear Rock Coal Co. Bear Rock No. 1,	Cambria,	John Leahey,	Lilly,	J. A. Leahey,	Lilly,	Pennsylvania
John A. Leap Plane,	Cambria,	John A. Leap,	Lilly,	Thomas Leap,	Lilly,	Pennsylvania
Standard Coal Co. Standard No. 1,	Cambria,	R. J. Hughes,	Altoona,	W. T. Williams,	Lilly,	Pennsylvania
Leap Coal Mining Co. Leap No. 1,	Cambria,	William Leap,	Cassandra,	William Leap,	Cassandra,	Pennsylvania

*Idle during the year.

TABLE 1.—Continued

Names of Operators and Mines	County	Name of General Superintendent	Post Office	Name of Superintendent	Post Office	Railroad to Mine
James Harris and Sons Harris No. 1,	Cambria,	James Harris,	Lilly,	John Harris,	Lilly,	Pennsylvania
Sugar Run Coal Mining Co. Ajax No. 1,	Blair,	H. M. Fair,	Altoona,	H. M. Fair,	Altoona,	Pennsylvania
T. C. Harding Beaver Dam,	Cambria,	T. C. Harding,	Coalport,	...	...	Pennsylvania
Robert Smith Coal Mining Co. Kokomo,	Cambria,	...	...	Robert Smith,	Lilly,	Pennsylvania
Richland Coal and Mining Co. Superior Nos. 4 and 6,	Cambria,	Arthur R. Torry,	Dysart,	...	...	...
Henderson, Hughes and Co. Big Bend No. 6,	Cambria,	D. W. Hughes,	Philadelphia,	John McCool,	Expedit,	Pennsylvania
Bens-Creek Sonman Coal Co. Bens-Creek Shaft,†	Cambria,	James B. Neale,	Minersville,	James Strachan,	Sonman,	Pennsylvania
F. X. Bradley Bradley No. 1,	Blair,	F. X. Bradley,	Gallitzin,	...	...	Pennsylvania
Bens-Creek Coal Mining Co. Maple Ridge,‡	Cambria,	J. Swires,	Philipsburg,	J. Swires,	Philipsburg,	Pennsylvania
George Masenko Flinton No. 1,	Cambria,	George Masenko,	Flinton,	George Masenko,	Flinton,	Pennsylvania
Loudon and Page Russet No. 1,‡	Blair,	...	...	William Robbins,	Coupon,	Pennsylvania
Dexcar Coal Mining Co. Claire,	Cambria,	Joseph J. McCann,	Lloydell,	...	...	Pennsylvania
Fallen Timber Coal Co. Fallen Timber No. 1,‡	Cambria,	W. H. Beers,	Fallen Timber,	Charles Lamb,	Fallen Timber,	Pennsylvania

†Abandoned.
‡New mines.

TABLE 2.—Number of tons of coal mined and tons of coke produced, number of days worked, number of persons employed, number killed and injured, quantity of powder, dynamite and permissible explosives used, etc.

Names of operators and Mines	County	Number of tons of coal shipped to market	Number of tons used at mines for steam and heat	Number of tons sold to local trade and used by employes	Number of tons used in manufacture of coke	Total production of coal in tons	Total production of coke in tons	Number of coke ovens	Number of days worked	Number of employes	Number of fatal accidents	Number of non-fatal accidents	Explosives			Number of horses and mules
													Number of pounds of powder used	Number of pounds of dynamite used	Number of pounds of permissible explosives used	
Pennsylvania Coal and Coke Corporation,																
Pennsylvania No. 1, ...	Cambria, ...	6,129	....	25	....	6,154	....	......	34	27	....	....	925	800	....	2
Pennsylvania No. 7, ...		120,063	2,944	499	....	123,506	....	55	288	152	....	1	16,000	400	....	11
Pennsylvania No. 9, ...		112,087	7,689	5,515	33,393	158,684	21,683	100	289	253	....	3	23,800	1,700	2,400	18
Pennsylvania No. 10, ...		239,898	5,386	2,020	103,251	350,555	73,574	400	259	434	....	6	53,500	50	500	34
Pennsylvania No. 14, ...		140,600	4,571	624	....	145,795	....	......	247	209	....	....	43,000	....	1,400	16
Pennsylvania No. 19, ...	Blair, ...	9,719	393	....	8,974	19,086	5,972	50	89	80	....	1	2,500	....	....	6
Totals, ...	....	628,496	20,983	8,683	145,618	803,780	101,229	605	......	1,155	....	11	139,725	2,950	4,300	87
Commercial Coal Mining Co.																
Commercial No. 3, ...	Cambria, ...								258	......	....	9				
Commercial No. 4, ...	Cambria, ...	284,350	....	2,198	....	286,543	....	......	267	373	....	3	25,896	....	8,868	24
Commercial No. 5, ...	Cambria, ...	166,824	....	185	....	167,009	....	......	252	153	1	1	16,745	....	964	....
Totals, ...	....	451,174	....	2,378	....	453,552	....	......	......	526	1	13	42,640	....	9,832	24
Vinton Colliery Co.																
Vinton No. 1, ...	Cambria, ...	153,165	6,426	....	....	159,591	....	......	275	201	....	....	....	....	....	6
Vinton No. 3, ...		68,150	2,138	1,700	....	71,988	....	......	271	76	....	1	....	....	96,180	4
Vinton No. 6, ...		86,513	840	....	109,169	196,522	75,219	152	278	306	....	....	....	5,600	....	....
Totals, ...	....	307,828	9,404	1,700	109,169	428,101	75,219	152	......	583	....	1	....	5,600	96,180	10

TABLE 2.—Continued

Names of Operators and Mines	County	Number of tons of coal shipped to market	Number of tons used at mines for steam and heat	Number of tons sold to local trade and used by employes	Number of tons used in manufacture of coke	Total production of coal in tons	Total production of coke in tons	Number of coke ovens	Number of days worked	Number of employes	Number of fatal accidents	Number of non-fatal accidents	Explosives			Number of horses and mules
													Number of pounds of powder used	Number of pounds of dynamite used	Number of pounds of permissible explosives used	
Sonman Shaft Coal Co.																
Sonman Shaft, ...	Cambria, ...	230,845	6,405	....	....	237,250	....	......	274	347	1	3	12,700	2,000	....	42
Sonman Slope, ...	Cambria, ...	74,757	5,908	345	....	81,010	....	......	283	111	....	4	8,000	1,000	4,000	8
Totals, ...	....	305,602	12,313	345	....	318,260	....	......	......	458	1	7	20,700	3,000	4,000	50
W. H. Piper and Co.																
Sonman No. 2, ...	Cambria, ...	243,613	7,570	707	....	251,890	....	......	296	278	....	....	12,235	6,643	....	17
Sonman No. 4, ...	Cambria, ...	25,437	....	360	....	25,797	....	......	281	36	....	....	2,000	400	....	4
Totals, ...	....	269,050	7,570	1,067	....	277,687	....	......	......	314	....	....	14,235	7,043	....	21
Shoemaker Coal Mining Co.																
Wilmore No. 1, ...	Cambria, ...	244,509	2,400	....	....	246,909	....	......	240	247	....	3	23,000	1,250	....	20
Taylor and McCoy Coal and Coke Co.																
Gallitzin Shaft, ...	Cambria, ...	81,834	6,025	4,800	123,515	216,174	79,424	212	294	349	....	1	35,460	245	....	28
Nant-Y-Glo Coal Mining Co.																
Nant-Y-Glo No. 1, ...	Cambria, ...	209,113	4,357	....	....	213,470	....	......	241	251	....	1	16,011	112	442	....

Altoona Coal and Coke Co.																
Delaney No. 5,	Cambria,	179,454	5,661	993	16,040	202,148	9.944	70	273	270	....	2	31,875	....	....	17
Horseshoe,	Blair,	9,519	486	....	....	10,005	....	......	243	10	....	....	....	....	....	2
Totals,	....	188,978	6,147	993	16,040	212,153	9,944	70	......	280	....	2	31,875	....	....	19
Tunnel Coaling Co.																
Tunnel No. 1,	Blair,	194,470	4,685	6,713	....	205,868	....	......	249	234	....	2	25,000	510	200	22
F. P. McFarland																
Dean No. 8,	Cambria,	1,014	350	45	31,722	33,131	22,500	88	254	70	....	1	5,520	150	....	5
Dean No. 10,	Cambria,	152,256	3,000	1,050	....	156,306	....	......	264	243	1	1	26,060	75	....	3
Totals,	....	153,270	3,350	1,095	31,722	189,437	22,500	88	......	313	1	2	31,570	225	....	8
Cardiff Coal Co.																
Cardiff No. 1,	Cambria,	178,650	3,720	634	....	183,004	....	......	244	168	....	3	....	....	25,000	....
Big Bend Coal Mining Co.																
Nonparell No. 1,	Cambria,	154,142	3,733	1,206	....	159,081	....	......	261	163	1	2	24,550	....	1,806	11
Lincoln Coal Co.																
Lincoln No. 1,	Cambria,	151,072	1,340	189	....	152,601	....	......	254	150	....	2	21,580	200	....	....
Springfield Coal Mining Co.																
Springfield No. 1,	Cambria,	143,615	4,000	750	....	148,365	....	......	259	124	1	3	40,000	150	2,000	4
Glen White Coal and Lumber Co.																
Glen White No. 2,	Blair,	77,854	4,276	227	50,042	132,399	32,550	90	288	161	....	1	15,600	150	....	10
Lilly Coal Co. and W. H. Hughes																
Lilly No. 2,	Cambria,	83,275	1,941	287	....	85,503	....	......	295	179	....	....	1,200	800	....	10
Lilly No. 3,	Cambria,	41,125	1,940	147	....	43,212	....	......	295	104	....	1	....	....	....	6
Totals,	....	124,400	3,881	434	....	128,715	....	......	......	283	....	1	1,200	800	....	16
Estep Brothers Coal Mining Co.																
Ivory Hill,	Cambria,	94,154	1,389	5,598	....	101,141	....	......	275	122	....	....	8,000	100	....	15
Juniata Coal Co.																
Juniata No. 1,	Cambria,	58,000	....	....	....	58,000	....	......	306	81	....	....	4,000	50	....	6
Juniata No. 3,	Cambria,	1,500	100	....	....	1,600	....	......	78	20	....	....	....	....	....	....
Totals,	....	59,500	100	....	....	59,600	....	......	......	101	....	....	4,000	50	....	6
W. H. Hughes and Co.																
Hughes No. 2,	Cambria,	53,111	3,439	....	....	56,550	....	......	296	89	....	....	....	900	....	10

TABLE 2.—Continued

Names of Operators and Mines	County	Number of tons of coal shipped to market	Number of tons used at mines for steam and heat	Number of tons sold to local trade and used by employes	Number of tons used in manufacture of coke	Total production of coal in tons	Total production of coke in tons	Number of coke ovens	Number of days worked	Number of employes	Number of fatal accidents	Number of non-fatal accidents	Explosives			Number of horses and mules
													Number of pounds of powder used	Number of pounds of dynamite used	Number of pounds of permissible explosives used	
Anderson Coal Mining Co. Peerless Nos. 1 and 2,..	Cambria, ...	38,895	213	511	....	39,619	....	......	270	45	....	....	6,165	....	....	9
Leahey Coal Mining Co. Moshannon No. 2, ...	Cambria, ...	35,048	3,819	125	....	38,992	....	......	266	61	....	1	2,550	100	....	5
Bear Rock Coal Co. Bear Rock No. 1, ...	Cambria, ...	38,276	288	84	....	38,648	....	......	275	67	....	1	7,500	100	....	10
John A. Leap Plane, .../......	Cambria, ...	30,114	....	200	....	30,314	....	......	258	50	....	....	6,000	50	....	11
Standard Coal Co. Standard No. 1, ...	Cambria, ...	28,470	100	....	....	28,570	....	......	274	45	....	....	300	400	....	12
Leap Coal Mining Co. Leap No. 1, ...	Cambria, ...	21,631	....	100	....	21,731	....	......	243	44	....	....	4,000	....	....	7
James Harris and Sons Harris No. 1, ...	Cambria, ...	21,195	25	125	....	21,345	....	......	261	29	....	....	2,000	....	....	3
Sugar Run Coal Mining Co. Ajax No. 1, ...	Blair, ...	20,410	....	65	....	20,475	....	......	257	31	....	....	4,000	20	....	3
T. C. Harding Beaver Dam, ...	Cambria, ...	18,239	....	....	....	18,239	....	......	249	24	....	....	4,560	....	....	2

Robert Smith Coal Mining Co.																
Kokomo, ...	Cambria, ...	13,982	....	1,964	....	15,946	....	......	268	20	....	....	1,715	....	....	4
Richland Coal and Mining Co.																
Superior Nos. 4 and 6,..	Cambria, ...	14,000	175	150	....	14,325	....	......	130	27	....	....	3,350	....	....	3
Henderson, Hughes and Co.																
Big Bend No. 6, ...	Cambria, ...	11,772	40	....	....	11,812	....	......	91	64	....	....	....	....	....	8
Bens-Creek Sonman Coal Co.																
Bens-Creek Shaft,*	Cambria, ...	9,200	1,025	72	....	10,297	....	......	158	24	....	....	....	....	....	2
F. X. Bradley																
Bradley No. 1, ...	Blair, ...	6,800	....	20	....	6,820	....	......	196	13	....	....	....	....	....	2
Bens-Creek Coal Mining Co.																
Maple Ridge, ...	Cambria, ...	5,043	336	....	....	5,379	....	......	228	16	....	....	400	100	....	1
George Mazenko																
Flinton No. 1, ...	Cambria, ...	4,617	....	60	....	4,677	....	......	268	8	....	....	....	....	....	1
Loudon and Page																
Russet No. 1, ...	Blair, ...	3,751	35	3	....	3,789	....	......	91	15	....	....	1,680	15	....	2
Dexcar Coal Mining Co.																
Claire, ...	Cambria, ...	16,089	91	122	....	16,302	....	......	78	84	....	....	400	....	....	3
Fallen Timber Coal Co.																
Fallen Timber No. 1, ..	Cambria, ...	17,192	30	232	....	17,454	....	......	247	37	....	....	5,325	850	....	....
Grand totals, ...	....	4,425,541	109,289	40,645	476,106	5,051,581	320,866	1,217	......	6,775	5	57	545,091	24,920	143,760	444

*Abandoned.

TABLE 2 -Part 2

Names of Operators	County	Number of Boilers					Locomotives				Number of steam engines of all classes	Total horse power	Number of pumps delivering water to surface	Capacity in gallons per minute	Quantity delivered to surface per minute—gallons	Number of electric dynamos	Number of air compressors
		Cylindrical	Horse power	Tubular	Horse power	Total horse power	Gasoline	Steam	Air	Electric							
Pennsylvania Coal and Coke Corporation,	Cambria, Blair,	......	......	18	2,750	2,750	....	....	....	24	13	1,410	8	4,650	3,100	6	1
Commercial Coal Mining Co.,	Cambria,	......	......	....	....	....	....	....	....	7	......	....	3	1,650	925	4	......
Vinton Colliery Co.,	Cambria,	......	......	9	2,900	2,900	....	2	....	8	6	2,500	9	2,450	1,000	4	1
Sonman Shaft Coal Co.,	Cambria,	......	......	7	1,100	1,100	....	....	....	2	5	600	1	3,000	2,000	2	......
W. H. Piper and Co.,	Cambria,	......	......	4	750	750	....	....	....	....	4	630	2	1,100	600	1	2
Shoemaker Coal Mining Co.,	Cambria,	......	......	3	380	380	....	....	....	....	2	350	2	500	200	......	......
Taylor and McCoy Coal and Coke Co.,	Cambria,	......	......	6	800	800	....	....	....	1	6	1,200	1	800	600	2	......
Nant-Y-Glo Coal Mining Co.,	Cambria,	......	......	4	800	800	....	....	....	4	5	785	....	....	....	2	1
Altoona Coal and Coke Co.,	Cambria, Blair,	......	......	5	550	550	....	....	....	2	4	530	1	150	150	1	2
Tunnel Coaling Co.,	Blair,	1	15	4	550	565	....	1	....	2	3	580	....	....	....	2	......
F. P. McFarland,	Cambria,	......	......	8	830	830	....	....	....	5	4	777	....	....	....	2	1
Cardiff Coal Co.,	Cambria,	......	......	3	350	350	....	....	....	4	2	350	....	....	....	1	......
Big Bend Coal Mining Co.,	Cambria,	3	600	1	210	810	....	....	....	3	2	175	3	700	700	3	......
Lincoln Coal Co.,	Cambria,	......	......	2	300	300	....	....	....	4	3	318	2	120	120	2	......
Springfield Coal Mining Co.,	Cambria,	......	......	3	550	550	....	....	....	3	2	50	2	1,000	800	1	3
Glen White Coal and Lumber Co.,	Blair,	5	300	....	....	300	....	2	....	....	4	200	....	....	....	......	1
Lilly Coal Co. and W. H. Hughes,	Cambria,	......	......	4	600	600	....	....	....	2	3	600	1	300	50	2	......
Estep Brothers Coal Mining Co.,	Cambria,	......	......	2	140	140	....	....	....	....	2	75	1	60	40	......	......
Juniata Coal Co.,	Cambria,	......	......	2	80	80	....	....	....	....	1	70	....	....	....	......	......
W. H. Hughes and Co.,	Cambria,	......	......	3	400	400	....	....	....	....	2	300	1	500	350	1	......
Anderson Coal Mining Co.,	Cambria,	......	......	....	....	....	....	1	....	....	1	15	....	....	....	......	......
Leahey Coal Mining Co.,	Cambria,	......	......	4	450	450	....	....	....	....	2	50	2	700	700	......	......

Bear Rock Coal Co.,	Cambria,	5	340			340		1			3	70	2	500	300		
Standard Coal Co.,	Cambria,			1	20	20					1	15	1	100	100		
Leap Coal Mining Co.,	Cambria,	1	25			25					1	10					
James Harris and Sons,	Cambria,	1	25			25					1	14					
Richland Coal and Mining Co.,	Cambria,	1	200			200				2	1	150				1	
Henderson, Hughes and Co.,	Cambria,	1	15			15		1					2	30			
Bens-Creek Sonman Coal Co.,	Cambria,			1	100	100					2	150					
Dexcar Coal Mining Co.,	Cambria,			1	120	120											
Totals,		18	1,520	95	14,530	16,050		8		73	85	11,974	44	18,310	11,785	37	12

TABLE 3.—Number of Each Class of Employes Inside and Outside of Mines

Names of Operators	County	Inside												Outside								
		Mine foremen	Assistant mine foremen	Fire bosses	Miners	Machine runners	Machine loaders	Machine scrapers	Drivers and runners	Doorboys and helpers	Company men	All other employes	Total inside	Superintendents	Foremen	Blacksmiths and carpenters	Engineers and firemen	Coke employes	Bookkeepers and clerks	All other employes	Total outside	Grand total inside and outside
Pennsylvania Coal and Coke Corporation,	Cambria, Blair,	6	12	1	288	28	425	28	85	3	120	.....	996	....	2	22	22	44	3	66	159	1,155
Commercial Coal Mining Co.,	Cambria,	3	3	....	201	7	179	7	25	3	22	11	461	3	....	10	4	....	2	46	65	526
Vinton Colliery Co.,	Cambria,	3	4	2	200	8	175	8	7	1	60	.....	468	....	5	13	8	40	10	39	115	583
Sonman Shaft Coal Co.,	Cambria,	2	3	1	248	3	62	3	33	2	65	.....	422	1	1	6	12	....	2	14	36	458
W. H. Piper and Co.,	Cambria,	2	2	....	250	......	......	......	23	....	9	6	292	....	....	2	7	....	1	12	22	314
Shoemaker Coal Mining Co.,	Cambria,	1	1	....	202	......	......	......	20	3	5	.....	232	1	....	2	4	....	1	7	15	247
Taylor and McCoy Coal and Coke Co.,	Cambria,	1	2	....	45	6	163	6	18	2	9	13	265	1	1	4	8	65	3	3	84	349
Nant-Y-Glo Coal Mining Co.,	Cambria,	1	3	....	35	11	135	11	10	4	19	.....	229	1	....	2	7	....	1	11	22	251
Altoona Coal and Coke Co.,	Cambria, Blair,	2	1	....	66	7	180	7	17	2	7	7	246	1	1	2	9	11	1	9	34	280
Tunnel Coaling Co.,	Blair,	1	2	....	33	7	115	7	15	1	8	15	204	1	1	2	4	....	2	20	30	234
F. P. McFarland,	Cambria,	2	1	....	235	3	3	3	18	1	5	.....	271	1	....	4	3	16	2	16	42	313
Cardiff Coal Co.,	Cambria,	1	....	2	20	8	100	8	6	3	4	.....	152	1	1	3	2	....	1	8	16	168
Big Bend Coal Mining Co.,	Cambria,	1	1	....	......	3	139	3	4	1	2	.....	154	1	....	1	3	....	1	3	9	163
Lincoln Coal Co.,	Cambria,	1	1	....	25	4	81	4	10	2	8	.....	136	1	....	3	2	....	1	7	14	150
Springfield Coal Mining Co.,	Cambria,	1	....	2	15	5	60	5	5	2	10	.....	105	1	....	5	5	....	1	7	19	124
Glen White Coal and Lumber Co.,	Blair,	1	2	....	49	4	52	4	10	1	5	.....	128	1	1	2	6	16	1	6	33	161

Lilly Coal Co. and W. H. Hughes, ...	Cambria, ...	2	2	....	216	......	......	......	22	1	8	......	251	2	....	4	6	....	1	19	32	283
Estep Brothers Coal Mining Co., ...	Cambria, ...	1	1	....	90	......	......	......	7	4	4	......	107	2	....	2	3	....	1	7	15	122
Juniata Coal Co., ...	Cambria, ...	2	....	....	80	......	......	......	7	1	5	......	95	2	....	2	....	....	....	2	6	101
W. H. Hughes and Co., ...	Cambria, ...	1	1	....	65	......	......	......	4	1	4	......	76	1	....	2	3	....	....	7	13	89
Anderson Coal Mining Co., ...	Cambria, ...	1	....	....	31	......	......	......	4	....	2	......	38	1	....	1	2	....	1	2	7	45
Leahey Coal Mining Co., ...	Cambria, ...	1	....	....	40	......	......	......	4	....	4	2	51	1	....	1	2	....	1	5	10	61
Bear Rock Coal Co.,..	Cambria, ...	1	....	....	41	......	......	......	7	....	....	9	58	1	1	1	2	....	1	3	9	67
John A. Leap, ...	Cambria, ...	1	....	....	30	......	......	......	7	2	1	3	44	1	1	....	....	....	1	3	6	50
Standard Coal Co., ..	Cambria, ...	1	....	....	33	......	......	......	7	....	2	......	43	1	....	1	....	....	....	....	2	45
Leap Coal Mining Co.,	Cambria, ...	1	....	....	32	......	......	......	6	....	2	......	41	1	....	....	....	....	1	1	3	44
James Harris and Sons, ...	Cambria, ...	1	....	....	22	......	......	......	3	....	....	......	26	1	....	1	....	....	....	1	3	29
Sugar Run Coal Mining Co., ...	Blair, ...	1	....	....	25	......	......	......	2	....	....	......	28	1	....	....	....	....	1	1	3	31
T. C. Harding, ...	Cambria, ...	1	....	....	20	......	......	......	2	....	....	......	23	....	1	....	....	....	....	....	1	24
Robert Smith Coal Mining Co., ...	Cambria, ...	1	....	....	14	......	......	......	2	....	1	......	18	1	....	....	....	....	1	....	2	20
Richland Coal and Mining Co., ...	Cambria, ...	1	....	....	19	......	......	......	3	....	....	......	23	....	....	1	1	....	....	2	4	27
Henderson, Hughes and Co., ...	Cambria, ...	1	....	....	50	......	......	......	4	....	2	......	57	1	....	1	2	....	1	2	7	64
Bens-Creek Sonman Coal Co., ...	Cambria, ...	1	....	....	19	......	......	......	1	....	....	......	21	....	....	1	2	....	....	....	3	24
F. X. Bradley, ...	Blair, ...	1	....	....	8	......	......	......	1	....	1	......	11	1	....	....	....	....	1	....	2	13
Bens-Creek Coal Mining Co., ...	Cambria, ...	1	....	....	10	......	......	......	1	....	2	......	14	1	....	....	....	....	1	....	2	16
George Mazenko, ...	Cambria, ...	....	....	....	4	......	......	......	1	....	1	......	6	1	....	1	....	....	....	....	2	8
Loudon and Page, ...	Blair, ...	1	....	....	13	......	......	......	1	....	....	......	15	....	....	....	....	....	....	....	......	15
Dexcar Coal Mining Co., ...	Cambria, ...	1	....	....	70	......	......	......	3	....	1	1	76	1	....	1	2	....	1	3	8	84
Fallen Timber Coal Co., ...	Cambria, ...	1	....	....	32	......	......	......	1	....	1	......	35	1	....	1	....	....	....	....	2	37
Totals, ...	....	53	42	8	2,876	104	1,819	104	406	40	399	67	5,919	37	16	104	131	192	45	332	857	6,775

TABLE 3.—Part 2

Names of Operators	County	Average Number of Days Worked												
		January	February	March	April	May	June	July	August	September	October	November	December	Total
Pennsylvania Coal and Coke Corporation,	Cambria, Blair,	23	19	14	14	15	14	17	16	16	16	17	20	201
Commercial Coal Mining Co.,	Cambria,	23	20	22	21	22	16	24	23	19	23	23	23	259
Vinton Colliery Co.,	Cambria,	23	23	24	22	24	22	22	21	24	24	23	22	274
Sonman Shaft Coal Co.,	Cambria,	24	22	23	23	23	23	21	24	22	25	24	24	278
W. H. Piper and Co.,	Cambria,	24	24	26	21	26	24	24	26	24	26	24	20	289
Shoemaker Coal Mining Co.,	Cambria,	19	20	21	20	20	22	22	21	20	20	17	18	240
Taylor and McCoy Coal and Coke Co.,	Cambria,	26	24	22	25	26	22	25	24	25	26	25	24	294
Nant-Y-Glo Coal Mining Co.,	Cambria,	26	24	24	14	23	23	25	21	19	25	3	14	241
Altoona Coal and Coke Co.,	Cambria, Blair,	16	16	23	24	24	22	24	23	17	24	23	22	258
Tunnel Coaling Co.,	Blair,	22	22	24	18	20	18	18	19	20	21	22	25	249
F. P. McFarland,	Cambria,	23	21	22	23	19	23	22	22	22	25	19	14	255
Cardiff Coal Co.,	Cambria,	20	16	19	21	20	20	22	21	18	23	22	22	244
Big Bend Coal Mining Co.,	Cambria,	24	21	23	20	20	19	24	22	17	26	22	23	261
Lincoln Coal Co.,	Cambria,	18	16	23	21	25	22	24	20	17	22	22	24	254
Springfield Coal Mining Co.,	Cambria,	24	23	25	20	24	25	24	23	20	21	12	18	259
Glen White Coal and Lumber Co.,	Blair,	27	24	19	20	25	24	24	24	24	27	26	24	288
Lilly Coal Co. and W. H. Hughes,	Cambria,	20	22	22	21	22	20	21	21	18	21	21	18	247
Estep Brothers Coal Mining Co.,	Cambria,	23	21	23	21	23	25	24	24	20	24	23	24	275
Juniata Coal Co.,	Cambria,	12	12	14	13	13	12	13	13	13	27	25	25	192
W. H. Hughes and Co.,	Cambria,	25	24	26	25	22	25	25	25	24	27	24	24	296
Anderson Coal Mining Co.,	Cambria,	24	23	23	20	24	22	20	22	22	25	21	24	270
Leahey Coal Mining Co.,	Cambria,	26	22	25	25	24	12	12	23	25	26	24	22	266
Bear Rock Coal Co.,	Cambria,	23	23	25	25	24	22	22	22	19	25	23	22	275
John A. Leap,	Cambria,	22	21	20	20	24	24	13	15	23	26	25	25	258
Standard Coal Co.,	Cambria,	20	21	24	24	25	25	24	24	23	22	22	20	274
Leap Coal Mining Co.,	Cambria,	21	26	24	20	21	18	20	21	22	18	17	15	243
James Harris and Sons,	Cambria,	13	22	25	23	20	20	22	22	24	26	21	23	261
Sugar Run Coal Mining Co.,	Blair,	24	24	25	19	20	19	19	20	20	21	25	21	257
T. C. Harding,	Cambria,	20	19	22	21	22	20	23	22	20	19	19	22	249
Robert Smith Coal Mining Co.,	Cambria,	26	23	23	21	22	13	19	24	24	25	23	25	268
Richland Coal and Mining Co.,	Cambria,	19	5	......	......	......	14	....	23	19	20	25	5	130
Henderson, Hughes and Co.,	Cambria,	......	......	......	......	......	......	.....	......	22	25	22	22	91

Bens-Creek Sonman Coal Co.,	Cambria,	24	20	18	20	19	12	20	20	5	......	......	......	158
F. X. Bradley,	Blair,	15	20	20	15	16	10	10	14	18	18	20	20	196
Bens-Creek Coal Mining Co.,	Cambria,	20	21	20	22	21	......	20	21	20	22	21	20	228
George Mazenko,	Cambria,	24	20	23	16	24	23	24	22	23	24	24	21	268
Loudon and Page,	Blair,	......	......	......	......	......	......	......	......	12	27	26	26	91
Dexcar Coal Mining Co.,	Cambria,	......	......	......	......	......	......	......	......	......	26	26	26	78
Fallen Timber Coal Co.,	Cambria,	......	17	24	23	22	24	22	23	21	24	23	24	247

TABLE 4.—Fatal Accidents Inside and Outside of Mines

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Number of widows	Number of orphans	Name of Mine	County	Nature and Cause of Accident in Brief
Feb. 7	Andy Bebcuko, ...	Hungarian, .	Machine scraper, ...	27	M.	1	1	Commercial No. 5.	Cambria, ...	Instantly killed by fall of roof at face of room.
March 7	Mike Visosky, ...	Slavonian, ..	Miner, ...	53	M.	1	5	Sonman Shaft, ..		Fatally injured by fall of coal at face of room. Died two days afterward.
April 15	John Bedawick, ...	Austrian, ..	Miner, ...	24	M.	1	....	Dean No. 10, ..		Instantly killed by fall of roof at face of room.
Oct 15	Andy Golas, ...	Magyar, ...	Miner, ...	19	S.	....	....	Nonpareil No. 1,		Instantly killed by electricity on entry while pushing an empty car onto a switch.
25	Alex. Stifanowick, ...	Lithuanian,	Miner, ...	33	M.	1	1	Springfield No. 1,		Instantly killed by runaway cars on entry.

TABLE 5.—Non-Fatal Accidents Inside and Outside of Mines

Date of accident		Name of Person	Nationality	Occupation	Age	Married or single	Name of Mine	County	Nature and Cause of Accident in Brief
Jan.	1	George Savanilek,	Slavonian,	Miner,	35	M.	Bear Rock No. 1,	Cambria,	Slightly burned by gasoline at face of working place.
	4	Pete James,	Italian,	Miner,	24	S.	Sonman Shaft,	Cambria,	Leg bruised by fall of draw slate at face of room.
	7	Harvey Stevens,	American,	Company man,	24	S.	Dean No. 10,	Cambria,	Compound fracture of leg. Struck by piece of wood when tipple was wrecked by trip of cars. Outside.
	28	John Dochoe,	Polish,	Miner,	28	S.	Glen White No. 2,	Blair,	Face and hands burned by powder. On his way into the mine he stumbled over a road sheave, spilling and igniting a can of powder he was carrying.
	31	Albert Podoski,	Slavonian,	Miner,	52	M.	Commercial No. 4,	Cambria,	Pelvis bone broken by fall of roof while pushing car out of room. The roof fell on his back.
Feb.	10	Theodore Batz,	American,	Coke worker,	24	M.	Pennsylvania No. 19,	Blair,	Two fingers fractured by cars. Outside.
		Andy Chervanick,	Polish,	Engineer,	17	S.	Sonman Slope,	Cambria,	Finger cut off while cleaning cogwheel when machine was in motion.
	22	Wm. P. McManamy,	American,	Miner.	33	M.	Pennsylvania No. 9,	Cambria,	Arm broken and badly lacerated by mining machine at face of entry.
	24	Martian Greshka,	Polish,	Driver,	26	S.	Sonman Shaft,	Cambria,	Leg fractured by cars on entry.
	26	Samuel Crom,	American,	Miner.	23	S.	Sonman Slope,	Cambria,	Back hurt by fall of bony coal at face of room.
March	3	Blacide Boche,	Italian,	Miner.	52	M.	Sonman Slope,	Cambria,	Hands and face slightly burned by dynamite while firing a blast at face of working place.
	6	Albert Wyanberlin,	American,	Trip runner,	19	S.	Pennsylvania No. 10,	Cambria,	Four toes crushed by cars on entry.
	22	Paul Allago,	Italian,	Miner,	25	S.	Commercial No. 5,	Cambria,	Leg fractured in twp places by fall of roof at face of room.
April	24	James Huchinson,	American,	Driver,	40	S.	Wilmore No. 1,	Cambria,	Collar bone broken by cars on entry.
May	2	Samuel Keith,	American,	Company man,	35	M.	Commercial No 4.,	Cambria,	Jaw bone broken by cars while riding in empty trip down slope.
	16	Andy Bromark,	American,	Motorman,	25	M.	Pennsylvania No. 10,	Cambria,	Leg broken. Caught between motors on entry.

TABLE 2.—Continued

Names of Operators and Mines	County	Number of tons of coal shipped to market	Number of tons used at mines for steam and heat	Number of tons sold to local trade and used by employes	Number of tons used in manufacture of coke	Total production of coal in tons	Total production of coke in tons	Number of coke ovens	Number of days worked	Number of employes	Number of fatal accidents	Number of non-fatal accidents	Explosives: Number of pounds of powder used	Explosives: Number of pounds of dynamite used	Explosives: Number of pounds of permissible explosives used	Number of horses and mules
Anderson Coal Mining Co. Peerless Nos. 1 and 2,	Cambria,	38,895	213	511	....	39,619	....	...	270	45	...	...	6,165	....	....	9
Leahey Coal Mining Co. Moshannon No. 2,	Cambria,	35,048	3,819	125	....	38,992	....	...	266	61	...	1	2,550	100	....	5
Bear Rock Coal Co. Bear Rock No. 1,	Cambria,	38,276	288	84	....	38,648	....	...	275	67	...	1	7,500	100	....	10
John A. Leap Plane,	Cambria,	30,114	....	200	....	30,314	....	...	258	50	...	...	6,000	50	....	11
Standard Coal Co. Standard No. 1,	Cambria,	28,470	100	....	....	28,570	....	...	274	45	...	...	300	400	....	12
Leap Coal Mining Co. Leap No. 1,	Cambria,	21,631	....	100	....	21,731	....	...	243	44	...	...	4,000	....	....	7
James Harris and Sons Harris No. 1,	Cambria,	21,195	25	125	....	21,345	....	...	261	29	...	...	2,000	....	....	3
Sugar Run Coal Mining Co. Ajax No. 1,	Blair,	20,410	....	65	....	20,475	....	...	257	31	...	...	4,000	20	....	8
T. C. Harding Beaver Dam,	Cambria,	18,239	....	....	....	18,239	....	...	249	24	...	...	4,560	....	....	2

Robert Smith Coal Mining Co. Kokomo,	Cambria,	13,982	....	1,964	....	15,946	....	......	268	20	....	....	1,715	....	....	4
Richland Coal and Mining Co. Superior Nos. 4 and 6,	Cambria,	14,000	175	150	....	14,325	....	......	130	27	....	....	3,350	....	....	3
Henderson, Hughes and Co. Big Bend No. 6,	Cambria,	11,772	40	....	....	11,812	....	......	91	64	....	....	....	....	....	8
Bens-Creek Sonman Coal Co. Bens-Creek Shaft,*	Cambria,	9,200	1,025	72	....	10,297	....	......	158	24	....	....	....	....	....	2
F. X. Bradley Bradley No. 1,	Blair,	6,800	....	20	....	6,820	....	......	196	13	....	....	....	....	....	2
Bens-Creek Coal Mining Co. Maple Ridge,	Cambria,	5,043	336	....	....	5,379	....	......	228	16	....	....	400	100	....	1
George Mazenko Flinton No. 1,	Cambria,	4,617	....	60	....	4,677	....	......	268	8	....	....	....	....	....	1
Loudon and Page Russet No. 1,	Blair,	3,751	35	3	....	3,789	....	......	91	15	....	....	1,680	15	....	2
Dexcar Coal Mining Co. Claire,	Cambria,	16,089	91	122	....	16,302	....	......	78	84	....	....	400	....	....	3
Fallen Timber Coal Co. Fallen Timber No. 1,	Cambria,	17,192	30	232	....	17,454	....	......	247	37	....	....	5,325	850	....	....
Grand totals,	....	4,425,541	109,289	40,645	476,106	5,051,581	320,866	1,217	......	6,775	5	57	545,091	24,920	143,760	444

*Abandoned.

TABLE 2 -Part 2

Names of Operators	County	Number of Boilers					Locomotives				Number of steam engines of all classes	Total horse power	Number of pumps delivering water to surface	Capacity in gallons per minute	Quantity delivered to surface per minute—gallons	Number of electric dynamos	Number of air compressors
		Cylindrical	Horse power	Tubular	Horse power	Total horse power	Gasoline	Steam	Air	Electric							
Pennsylvania Coal and Coke Corporation,	Cambria, Blair,	......	......	18	2,750	2,750	....	....	....	24	13	1,410	8	4,650	3,100	6	1
Commercial Coal Mining Co.,	Cambria,	......	......	......	......	......	....	....	....	7	......	......	3	1,650	925	4	......
Vinton Colliery Co.,	Cambria,	......	......	9	2,900	2,900	....	2	....	8	6	2,500	9	2,450	1,000	4	1
Sonman Shaft Coal Co.,	Cambria,	......	......	7	1,100	1,100	....	....	....	2	5	600	1	3,000	2,000	2	......
W. H. Piper and Co.,	Cambria,	......	......	4	750	750	....	....	....	....	4	630	2	1,100	600	1	2
Shoemaker Coal Mining Co.,	Cambria,	......	......	3	380	380	....	....	....	....	2	350	2	500	200	......	......
Taylor and McCoy Coal and Coke Co.,	Cambria,	......	......	6	800	800	....	....	....	1	6	1,200	1	800	600	2	......
Nant-Y-Glo Coal Mining Co.,	Cambria,	......	......	4	800	800	....	....	....	4	5	785	......	......	......	2	1
Altoona Coal and Coke Co.,	Cambria, Blair,	......	......	5	550	550	....	....	....	2	4	530	1	150	150	1	2
Tunnel Coaling Co.,	Blair,	1	15	4	550	565	....	1	....	2	3	580	......	......	......	2	......
F. P. McFarland,	Cambria,	......	......	8	830	830	....	....	....	5	4	777	......	......	......	2	1
Cardiff Coal Co.,	Cambria,	......	......	3	350	350	....	....	....	4	2	350	......	......	......	1	......
Big Bend Coal Mining Co.,	Cambria,	3	600	1	210	810	....	....	....	3	2	175	3	700	700	3	......
Lincoln Coal Co.,	Cambria,	......	......	2	300	300	....	....	....	4	3	318	2	120	120	2	......
Springfield Coal Mining Co.,	Cambria,	......	......	3	550	550	....	....	....	3	2	50	2	1,000	800	1	3
Glen White Coal and Lumber Co.,	Blair,	5	300	......	......	300	....	2	....	....	4	200	......	......	......	......	1
Lilly Coal Co. and W. H. Hughes,	Cambria,	......	......	4	600	600	....	....	....	2	3	600	1	300	50	2	......
Estep Brothers Coal Mining Co.,	Cambria,	......	......	2	140	140	....	....	....	....	2	75	1	60	40	......	......
Juniata Coal Co.,	Cambria,	......	......	2	80	80	....	....	....	....	1	70	......	......	......	......	......
W. H. Hughes and Co.,	Cambria,	......	......	3	400	400	....	....	....	....	2	300	1	500	350	1	......
Anderson Coal Mining Co.,	Cambria,	......	......	......	......	......	....	1	....	....	1	15	......	......	......	......	......
Leahey Coal Mining Co.,	Cambria,	......	......	4	450	450	....	....	....	....	2	50	2	700	700	......	......

Bear Rock Coal Co.,	Cambria,	5	340	....	....	340	....	1	....	....	3	70	2	500	300	......	......
Standard Coal Co.,	Cambria,	......	......	1	20	20	....	....	....	....	1	15	1	100	100	......	......
Leap Coal Mining Co.,	Cambria,	1	25	....	....	25	....	....	....	...	1	10	....	....	....	......	......
James Harris and Sons,	Cambria,	1	25	....	....	25	....	....	....	....	1	14	....	....	....	......	......
Richland Coal and Mining Co.,	Cambria,	1	200	....	....	200	....	....	....	2	1	150	....	....	....	1	......
Henderson, Hughes and Co.,	Cambria,	1	15	....	....	15	....	1	....	....	......	....	2	30	....	......	......
Bens-Creek Sonman Coal Co.,	Cambria,	......	......	1	100	100	....	....	....	....	2	150	....	....	....	......	......
Dexcar Coal Mining Co.,	Cambria,	......	......	1	120	120	....	....	....	....	......	....	....	....	....	......	......
Totals,	....	18	1,520	95	14,530	16,050	....	8	....	73	85	11,974	44	18,310	11,735	37	12

TABLE 3.—Number of Each Class of Employes Inside and Outside of Mines

Names of Operators	County	Inside												Outside								
		Mine foremen	Assistant mine foremen	Fire bosses	Miners	Machine runners	Machine loaders	Machine scrapers	Drivers and runners	Doorboys and helpers	Company men	All other employes	Total inside	Superintendents	Foremen	Blacksmiths and carpenters	Engineers and firemen	Coke employes	Bookkeepers and clerks	All other employes	Total outside	Grand total inside and outside
Pennsylvania Coal and Coke Corporation,	Cambria, Blair,	6	12	1	288	28	425	28	85	3	120	.....	996	....	2	22	22	44	3	66	159	1,155
Commercial Coal Mining Co.,	Cambria,	3	3	....	201	7	179	7	25	3	22	11	461	3	....	10	4	....	2	46	65	526
Vinton Colliery Co.,	Cambria,	3	4	2	200	8	175	8	7	1	60	.....	468	....	5	13	8	40	10	39	115	583
Sonman Shaft Coal Co.,	Cambria,	2	3	1	248	3	62	3	33	2	65	.....	422	1	1	6	12	....	2	14	36	458
W. H. Piper and Co.,	Cambria,	2	2	....	250	.....	.....	.....	23	....	9	6	292	....	....	2	7	....	1	12	22	314
Shoemaker Coal Mining Co.,	Cambria,	1	1	....	202	.....	.....	.....	20	3	5	.....	232	1	....	2	4	....	1	7	15	247
Taylor and McCoy Coal and Coke Co.,	Cambria,	1	2	....	45	6	163	6	18	2	9	13	265	1	1	4	8	65	2	3	84	349
Nant-Y-Glo Coal Mining Co.,	Cambria,	1	3	....	35	11	135	11	10	4	19	.....	229	1	....	2	7	....	1	11	22	251
Altoona Coal and Coke Co.,	Cambria, Blair,	2	1	....	66	7	130	7	17	2	7	7	246	1	1	2	9	11	1	9	34	280
Tunnel Coaling Co.,	Blair,	1	2	....	33	7	115	7	15	1	8	15	204	1	1	2	4	....	2	20	30	234
F. P. McFarland,	Cambria,	2	1	....	235	3	3	3	18	1	5	.....	271	1	....	4	3	16	2	16	42	313
Cardiff Coal Co.,	Cambria,	1	....	2	20	8	100	8	6	3	4	.....	152	1	1	3	2	....	1	8	16	168
Big Bend Coal Mining Co.,	Cambria,	1	1	....	.....	3	139	3	4	1	2	.....	154	1	....	1	3	....	1	3	9	163
Lincoln Coal Co.,	Cambria,	1	1	....	25	4	81	4	10	2	8	.....	136	1	....	3	2	....	1	7	14	150
Springfield Coal Mining Co.,	Cambria,	1	....	2	15	5	60	5	5	2	10	.....	105	1	....	5	5	....	1	7	19	124
Glen White Coal and Lumber Co.,	Blair,	1	2	....	49	4	52	4	10	1	5	.....	128	1	1	2	6	16	1	6	33	161

Lilly Coal Co. and W. H. Hughes, ...	Cambria, ...	2	2	....	216	......	......	......	22	1	8	......	251	2	....	4	6	....	1	19	32	283
Estep Brothers Coal Mining Co., ...	Cambria, ...	1	1	....	90	......	......	......	7	4	4	......	107	2	....	2	3	....	1	7	15	122
Juniata Coal Co., ...	Cambria, ...	2	....	....	80	......	......	......	7	1	5	......	95	2	....	2	....	....	....	2	6	101
W. H. Hughes and Co., ...	Cambria, ...	1	1	....	65	......	......	......	4	1	4	......	76	1	....	2	3	....	....	7	13	89
Anderson Coal Mining Co., ...	Cambria, ...	1	....	....	31	......	......	......	4	....	2	......	38	1	....	1	2	....	1	2	7	45
Leahey Coal Mining Co., ...	Cambria, ...	1	....	....	40	......	......	......	4	....	4	2	51	1	....	1	2	....	1	5	10	61
Bear Rock Coal Co.,..	Cambria, ...	1	....	....	41	......	......	......	7	....	....	9	58	1	1	1	2	....	1	3	9	67
John A. Leap, ...	Cambria, ...	1	....	....	30	......	......	......	7	2	1	3	44	1	1	....	....	....	1	3	6	50
Standard Coal Co., ..	Cambria, ...	1	....	....	33	......	......	......	7	....	2	......	43	1	....	1	....	....	....	....	2	45
Leap Coal Mining Co.,	Cambria, ...	1	....	....	32	......	......	......	6	....	2	......	41	1	....	....	....	....	1	1	3	44
James Harris and Sons, ...	Cambria, ...	1	....	....	22	......	......	......	3	....	....	......	26	1	....	1	....	....	....	1	3	29
Sugar Run Coal Mining Co., ...	Blair, ...	1	....	....	25	......	......	......	2	....	....	......	28	1	....	....	....	....	1	1	3	31
T. C. Harding, ...	Cambria, ...	1	....	....	20	......	......	......	2	....	....	......	23	....	1	....	....	....	....	....	1	24
Robert Smith Coal Mining Co., ...	Cambria, ...	1	....	....	14	......	......	......	2	....	1	......	18	1	....	....	....	....	1	....	2	20
Richland Coal and Mining Co., ...	Cambria, ...	1	....	....	19	......	......	......	3	....	....	......	23	....	....	1	1	....	....	2	4	27
Henderson, Hughes and Co., ...	Cambria, ...	1	....	....	50	......	......	......	4	....	2	......	57	1	....	1	2	....	1	2	7	64
Bens-Creek Souman Coal Co., ...	Cambria, ...	1	....	....	19	......	......	......	1	....	....	......	21	....	....	1	2	....	....	....	3	24
F. X. Bradley, ...	Blair, ...	1	....	....	8	......	......	......	1	....	1	......	11	1	....	....	....	....	1	....	2	13
Bens-Creek Coal Mining Co., ...	Cambria, ...	1	....	....	10	......	......	......	1	....	2	......	14	1	....	....	....	....	1	....	2	16
George Mazenko, ...	Cambria, ...	....	....	....	4	......	......	......	1	....	1	......	6	1	....	1	....	....	....	....	2	8
Loudon and Page, ...	Blair, ...	1	....	....	13	......	......	......	1	....	....	......	15	....	....	....	....	....	....	....	......	15
Dexcar Coal Mining Co., ...	Cambria, ...	1	....	....	70	......	......	......	3	....	1	1	76	1	....	1	2	....	1	3	8	84
Fallen Timber Coal Co., ...	Cambria, ...	1	....	....	32	......	......	......	1	....	1	......	35	1	....	1	....	....	....	....	2	37
Totals, ...	....	53	42	8	2,876	104	1,819	104	406	40	399	67	5,918	37	16	104	131	192	45	332	857	6,775

TABLE 3.—Part 2

Names of Operators	County	Average Number of Days Worked												
		January	February	March	April	May	June	July	August	September	October	November	December	Total
Pennsylvania Coal and Coke Corporation,	Cambria, Blair,	23	19	14	14	15	14	17	16	16	16	17	20	201
Commercial Coal Mining Co.,	Cambria,	23	20	22	21	22	16	24	23	19	23	23	23	259
Vinton Colliery Co.,	Cambria,	23	23	24	22	24	22	22	21	24	24	23	22	274
Sonman Shaft Coal Co.,	Cambria,	24	22	23	23	23	23	21	24	22	25	24	24	278
W. H. Piper and Co.,	Cambria,	24	24	26	21	26	24	24	26	24	26	24	20	289
Shoemaker Coal Mining Co.,	Cambria,	19	20	21	20	20	22	22	21	20	20	17	18	240
Taylor and McCoy Coal and Coke Co.,	Cambria,	26	24	22	25	26	22	25	24	25	26	25	24	294
Nant-Y-Glo Coal Mining Co.,	Cambria,	26	24	24	14	23	23	25	21	19	25	3	14	241
Altoona Coal and Coke Co.,	Cambria, Blair,	16	16	23	24	24	22	24	23	17	24	28	22	258
Tunnel Coaling Co.,	Blair,	22	22	24	18	20	18	18	19	20	21	22	25	249
F. P. McFarland,	Cambria,	23	21	22	23	19	23	22	22	22	25	19	14	255
Cardiff Coal Co.,	Cambria,	20	16	19	21	20	20	22	21	18	23	22	22	244
Big Bend Coal Mining Co.,	Cambria,	24	21	23	20	20	19	24	22	17	26	22	23	261
Lincoln Coal Co.,	Cambria,	18	16	23	21	25	22	24	20	17	22	22	24	254
Springfield Coal Mining Co.,	Cambria,	24	23	25	20	24	25	24	23	20	21	12	18	259
Glen White Coal and Lumber Co.,	Blair,	27	24	19	20	25	24	24	24	24	27	26	24	288
Lilly Coal Co. and W. H. Hughes,	Cambria,	20	22	22	21	22	20	21	21	18	21	21	18	247
Estep Brothers Coal Mining Co.,	Cambria,	23	21	23	21	23	25	24	24	20	24	23	24	275
Juniata Coal Co.,	Cambria,	12	12	14	13	13	12	13	13	13	27	25	25	192
W. H. Hughes and Co.,	Cambria,	25	24	26	25	22	25	25	25	24	27	24	24	296
Anderson Coal Mining Co.,	Cambria,	24	23	23	20	24	22	20	22	22	25	21	24	270
Leahey Coal Mining Co.,	Cambria,	26	22	25	25	24	12	12	23	25	26	24	22	266
Bear Rock Coal Co.,	Cambria,	23	23	25	25	24	22	22	22	19	25	23	22	275
John A. Leap,	Cambria,	22	21	20	20	24	24	13	15	28	26	25	25	258
Standard Coal Co.,	Cambria,	20	21	24	24	25	25	24	24	23	22	22	20	274
Leap Coal Mining Co.,	Cambria,	21	26	24	20	21	18	20	21	22	18	17	15	243
James Harris and Sons,	Cambria,	18	22	25	23	20	20	22	22	24	26	21	28	261
Sugar Run Coal Mining Co.,	Blair,	24	24	25	19	20	19	19	20	20	21	25	21	257
T. C. Harding,	Cambria,	20	19	22	21	22	20	23	22	20	19	19	22	249
Robert Smith Coal Mining Co.,	Cambria,	26	23	23	21	22	18	19	24	24	25	23	25	268
Richland Coal and Mining Co.,	Cambria,	19	5	......	......	......	14	....	23	19	20	25	5	130
Henderson, Hughes and Co.,	Cambria,	......	......	......	......	......	......	....	......	22	25	22	22	91

Bens-Creek Sonman Coal Co.,	Cambria,	24	20	18	20	19	12	20	20	5	......	......	......	158
F. X. Bradley,	Blair,	15	20	20	15	16	10	10	14	18	18	20	20	196
Bens-Creek Coal Mining Co.,	Cambria,	20	21	20	22	21	......	20	21	20	22	21	20	228
George Mazenko,	Cambria,	24	20	23	16	24	23	24	22	23	24	24	21	268
Loudon and Page,	Blair,	......	......	......	......	......	......	......	......	12	27	26	26	91
Dexcar Coal Mining Co.,	Cambria,	......	......	......	......	......	......	......	......	......	26	26	26	78
Fallen Timber Coal Co.,	Cambria,	......	17	24	23	22	24	22	23	21	24	23	24	247

TABLE 4.—Fatal Accidents Inside and Outside of Mines

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Number of widows	Number of orphans	Name of Mine	County	Nature and Cause of Accident in Brief
Feb. 7	Andy Bebcuko, ...	Hungarian, .	Machine scraper, ...	27	M.	1	1	Commercial No. 5.	Cambria, ...	Instantly killed by fall of roof at face of room.
March 7	Mike Visosky, ...	Slavonian, ..	Miner, ...	53	M.	1	5	Sonman Shaft, ..		Fatally injured by fall of coal at face of room. Died two days afterward.
April 15	John Bedawick, ...	Austrian, ..	Miner, ...	24	M.	1	....	Dean No. 10, ..		Instantly killed by fall of roof at face of room.
Oct 15	Andy Golas, ...	Magyar, ...	Miner, ...	19	S.	....	....	Nonpareil No. 1,		Instantly killed by electricity on entry while pushing an empty car onto a switch.
25	Alex. Stifanowick, ...	Lithuanian,	Miner, ...	33	M.	1	1	Springfield No. 1,		Instantly killed by runaway cars on entry.

TABLE 5.—Non-Fatal Accidents Inside and Outside of Mines

Date of accident		Name of Person	Nationality	Occupation	Age	Married or single	Name of Mine	County	Nature and Cause of Accident in Brief
Jan.	1	George Savanilek,	Slavonian,	Miner,	35	M.	Bear Rock No. 1,	Cambria,	Slightly burned by gasoline at face of working place.
	4	Pete James,	Italian,	Miner,	24	S.	Sonman Shaft,	Cambria,	Leg bruised by fall of draw slate at face of room.
	7	Harvey Stevens,	American,	Company man,	24	S.	Dean No. 10,	Cambria,	Compound fracture of leg. Struck by piece of wood when tipple was wrecked by trip of cars. Outside.
	28	John Dochoe,	Polish,	Miner,	28	S.	Glen White No. 2,	Blair,	Face and hands burned by powder. On his way into the mine he stumbled over a road sheave, spilling and igniting a can of powder he was carrying.
	31	Albert Podoski,	Slavonian,	Miner,	52	M.	Commercial No. 4,	Cambria,	Pelvis bone broken by fall of roof while pushing car out of room. The roof fell on his back.
Feb.	10	Theodore Batz,	American,	Coke worker,	24	M.	Pennsylvania No. 19,	Blair,	Two fingers fractured by cars. Outside.
		Andy Chervanick,	Polish,	Engineer,	17	S.	Sonman Slope,	Cambria,	Finger cut off while cleaning cogwheel when machine was in motion.
	22	Wm. P. McManamy,	American,	Miner.	33	M.	Pennsylvania No. 9,	Cambria,	Arm broken and badly lacerated by mining machine at face of entry.
	24	Martian Greshka,	Polish,	Driver,	26	S.	Sonman Shaft,	Cambria,	Leg fractured by cars on entry.
	26	Samuel Crom,	American,	Miner,	23	S.	Sonman Slope,	Cambria,	Back hurt by fall of bony coal at face of room.
March	3	Blacide Boche,	Italian,	Miner,	52	M.	Sonman Slope,	Cambria,	Hands and face slightly burned by dynamite while firing a blast at face of working place.
	6	Albert Wyanberlin,	American,	Trip runner,	19	S.	Pennsylvania No. 10,	Cambria,	Four toes crushed by cars on entry.
	22	Paul Allago,	Italian,	Miner,	25	S.	Commercial No. 5,	Cambria,	Leg fractured in two places by fall of roof at face of room.
April	24	James Huchinson,	American,	Driver,	40	S.	Wilmore No. 1,	Cambria,	Collar bone broken by cars on entry.
May	2	Samuel Keith,	American,	Company man,	35	M.	Commercial No 4.,	Cambria,	Jaw bone broken by cars while riding in empty trip down slope.
	16	Andy Bromark,	American,	Motorman,	25	M.	Pennsylvania No. 10,	Cambria,	Leg broken. Caught between motors on entry.

TABLE 5—Continued

Date of accident		Name of Person	Nationality	Occupation	Age	Married or single	Name of Mine	County	Nature and Cause of Accident in Brief
May	23	Vivion Kega,	Russian,	Miner,	27	M.	Commercial No. 3,	Cambria,	These four workmen entered the mine at 3 A. M. They rode down the slope in an empty car, lost control of it and were thrown out. Their bodies were bruised.
		Philyo Kolasky,			30	M.			
		Anton Minkia,			22	S.			
		Metro Zaak,			30	M.			
	31	Gabriel Saladie,	Austrian,	Miner,	32	M.	Nonpareil No. 1,	Cambria,	Knee dislocated and internally injured by fall of roof at face of working place.
June	24	Demitrius Yorst,	German,	Company man,	42	M.	Pennsylvania No. 9,	Cambria,	Leg broken and scalp severely wounded by empty car he was hauling from slate dump. Outside.
	25	Herman Hodges,	English,	Trip runner,	31	M.	Commercial No. 3,	Cambria,	Toe crushed by cars on entry.
July	1	John Parks,	American,	Driver,	21	S.	Sonman Shaft,	Cambria,	Small bone in leg fractured by cars on entry.
		Mike Soninlock,	Slavonian,	Miner,	42	M.	Pennsylvania No. 9,	Cambria,	Thumb nearly cut off with axe by chipping a cap piece.
	7	Pete Mage,	Hungarian,	Miner,	33	M.	Cardiff No. 1,	Cambria,	Thigh bruised by piece of coal falling off rib in roadway.
	11	Steve Behorye,	Hungarian,	Miner,	45	M.	Cardiff No. 1,	Cambria,	Rib broken and wrist dislocated by car in room.
	31	Joseph Toth,	Hungarian,	Miner,	25	S.	Cardiff No. 1,	Cambria,	Left collar bone broken by fall of coal while undermining at face of room.
		Joseph Evan,	Hungarian,	Miner,	27	M.	Commercial No. 3,	Cambria,	Collar bone broken by fall of coal.
		Michael Folde,	Hungarian,	Miner,	31	M.			Small bone in arm broken by fall of coal. They worked in same room.
Aug.	1	Dan Chirdon,	English,	Miner,	20	S.	Pennsylvania No. 7,	Cambria,	Hips bruised by fall of bony roof at face of working place.
	9	John Ignots,	Polish,	Driver,	30	S.	Pennsylvania No. 10,	Cambria,	Leg bruised and ankle sprained by car on entry.
	13	Thomas Batchinko,	Slavonian,	Miner,	35	M.	Wilmore No. 1,	Cambria,	Three ribs fractured by car on entry.
	14	Mike Logis,	Slavonian,	Miner,	34	S.	Springfield No. 1,	Cambria,	Hands and arm burned by powder on entry.
	18	Mike Beondi,	Italian,	Miner,	22	S.	Pennsylvania No. 10,	Cambria,	Leg bruised by fall of coal at face of room.
	20	John Baratock,	Slavonian,	Miner,	19	S.	Commercial No. 3,	Cambria,	Head and shoulder injured by fall of coal while undermining at face of room.
	22	John Wischuck,	Slavonian,	Machine runner,	30	M.	Lincoln No. 1,	Cambria,	Hips and back bruised.
		John Loukon,	Slavonion,	Machine scraper,	28	M.			Hips and back bruised. Caught by fall of drawslate at face of entry.

Aug.	25	Angelo Cogolsko,	Italian,	Miner,	21	S.	Pennsylvania No. 10,	Cambria,	Ankle and instep sprained by car in room.
	28	John Warner,	American,	Miner,	50	M.	Gallitzin Shaft,	Cambria,	Hand slightly burned by blast at face of room.
Sept.	15	Ignatius Mentel,	American,	Company man,	47	M.	Tunnel No. 1,	Blair,	Shoulder bone broken by fall of roof while measuring to set timber on entry.
	23	Lewis Satara,	Italian,	Miner,	43	M.	Nant-Y-Glo No. 1,	Cambria,	Collar bone fractured by fall of coal at face of room.
	25	Lewey Demary,	Italian,	Miner,	19	S.	Tunnel No. 1,	Blair,	Right femur broken by fall of coal while shearing coal at face of room.
Oct.	1	Alfred Williams,	American,	Miner,	46	M.	Dean No. 8,	Cambria,	Back sprained by fall of roof while removing pillar.
	23	John Nowak,	Polish,	Doorboy,	17	S.	Pennsylvania No. 10,	Cambria,	Foot badly crushed by cars on entry.
Nov.	7	Hulbert Allen,	American,	Driver,	22	M.	Lilly No. 8,	Cambria,	Leg fractured above ankle by cars on entry.
	8	Andy Kusta,	Polish,	Miner,	48	S.	Moshannon No. 2,	Cambria,	Leg bruised by fall of coal at face of room.
		Frank Gavasky,	Slavonian,	Laborer,	20	S.	Commercial No. 4,	Cambria,	Compound fracture of one leg and the other broken. Struck by rope on entry.
	11	John Hongo,	Hungarian,	Car oiler,	15	S.	Vinton No. 3,	Cambria,	Flesh wound on leg by cars. Outside.
	13	Anthony Levavoick,	Polish,	Miner,	17	S.	Delaney No. 5,	Cambria,	Rib fractured by fall of slate at face of room.
	14	John Lefko,	Slavonian,	Motorman,	26	M.	Springfield No. 1,	Cambria,	Leg bruised by being caught between motors on entry.
	18	Davis Bracken,	American,	Miner,	17	S.	Commercial No. 8,	Cambria,	Compound fracture of arm near elbow by fall of rock from an unseen slip at face of room.
	21	Charles Nagle,	English,	Trip rider,	30	M.	Delaney No. 5,	Cambria,	Three fingers crushed by cars on entry.
Dec.	10	Mike Petruska,	Hungarian,	Miner,	27	S.	Wilmore No. 1,	Cambria,	Collar bone dislocated by cars on entry.
	13	John E. Wilson,	American,	Driver,	22	M.	Sonman Slope,	Cambria,	Three ribs fractured by cars on entry.
	15	John Risko,	Russian,	Miner,	28	M.	Nonpareil No. 1,	Cambria,	Arm broken by cars on entry.
	24	John Hyland,	English,	Hooker-on,	24	S.	Springfield No. 1,	Cambria,	Compound fracture of leg by cars at foot of slope.

CONDITION OF MINES

PENNSYLVANIA COAL AND COKE CORPORATION

Pennsylvania No. 1.—Idle since February. However, some work has been done to improve the haulage system and ventilation.

Pennsylvania No. 7.—Only part of the mine has been operated during the year, the rest being in such condition as to warrant my protest against resuming work until the ventilation had been improved. Drainage good.

Pennsylvania No. 9.—In good condition.

Pennsylvania No. 10.—In good condition.

Pennsylvania No. 14.—In very fair condition.

Pennsylvania No. 16.—Idle during the year.

Pennsylvania No. 19.—Only worked intermittently during five months of the year. Ventilation and drainage fair.

COMMERCIAL COAL MINING COMPANY

Commercial Nos. 3 and 4.—Connected and operated as one mine. Ventilation in some entries not satisfactory. Drainage good.

Commercial No. 5.—Ventilation, drainage and general condition good.

VINTON COLLIERY COMPANY

Vinton Nos. 1, 3 and 6.—Ventilation and drainage good.

SONMAN SHAFT COAL COMPANY

Sonman Shaft—Condition has been very poor. Ventilation, drainage and haulage roads were in bad condition. At the close of the year steps were being taken to improve the sanitary and safety conditions.

Sonman Slope—Explosive gas was discovered generating in small quantities during the year. Improvements were made in the ventilation. The classification of the mine was changed from non-gaseous to gaseous, and provisions were made to comply with the law regulating gaseous mines. Ventilation good. Drainage fair.

W. H. PIPER AND COMPANY

Sonman No. 2.—The ventilation at the working faces of some of the entries has not been satisfactory, due to poor air stoppings, which were being rebuilt on my last visit. Drainage fair.

Sonman No. 4.—Ventilation and drainage fair. The number of employes was reduced to eight men, owing to the pillars being about exhausted at the close of the year.

SHOEMAKER COAL MINING COMPANY

Wilmore Nos. 1 and 2.—Connected and operated as one mine. Ventilation in some of the entries has not been satisfactory during the year. An opening to the surface at the face of one of the entries is expected to improve the ventilation. Drainage fair.

TAYLOR AND McCOY COAL AND COKE COMPANY

Gallitzin Shaft—In very fair condition. Ventilation and drainage good.

NANT-Y-GLO COAL MINING COMPANY

Nant-Y-Glo No. 1.—Ventilation and drainage good.

ALTOONA COAL AND COKE COMPANY

Delaney No. 5.—Ventilation and drainage good.

Horseshoe—Ventilation and drainage good. The number of persons employed was reduced to less than ten during the year.

TUNNEL COALING COMPANY

Tunnel No. 1.—Ventilation at the face of some of the entries during the year was not satisfactory. At the close of the year the ventilation was improved by sinking a shaft at the back end of the workings. Drainage good.

Tunnel No. 2.—Idle.

F. P. McFARLAND

Dean No. 8.—Ventilation and drainage fair.

Dean No. 10.—Ventilation in the right side workings was not satisfactory. In the left side workings it was good. Drainage good.

CARDIFF COAL COMPANY

Cardiff No. 1.—Ventilation and drainage fair.

BIG BEND COAL MINING COMPANY

Nonpareil No. 1.—Ventilation fair. Much trouble is experienced in keeping the airways open in the advanced workings, owing to the roof cutting and falling. Drainage good.

LINCOLN COAL COMPANY

Lincoln No. 1.—Ventilation was good, except in two entries where it was poor, owing to the bad condition of the air courses. The entry pillars are being removed and on my last visit I requested that the work be stopped until the ventilation was improved. I have been advised that the changes suggested have been carried out and have improved the ventilation. Drainage fair.

SPRINGFIELD COAL MINING COMPANY

Springfield No. 1.—The ventilation was not sufficient on two of my visits. Explosive gas was found to have accumulated on some of the old pillar falls, and safety lamps were ordered to be used in that section of the mine. The laws regulating gaseous mines were enforced. Since then the ventilation and other conditions for the safety of the employes have been improved. Drainage is being improved.

GLEN WHITE COAL AND LUMBER COMPANY

Glen White No. 1.—Idle.

Glen White No. 2.—Ventilation and drainage good.

LILLY COAL COMPANY AND W. H. HUGHES

Lilly No. 2.—Was in good condition, except on one visit when black damp was found at the end of the mine where the pillars are being removed. The mine is operated by two different operators, each having a separate part of the mine. Drainage is good.

Lilly No. 3.—Very little development has been made in this mine, although it has advanced more than 3,000 feet over old workings and into the solid coal. Ventilation and drainage fair.

ESTEP BROTHERS COAL MINING COMPANY

Ivory Hill—Ventilation and drainage fair.

JUNIATA COAL COMPANY

Juniata No. 1.—Ventilation was poor at the working faces, caused by poor air courses. The Rider seam is being worked. It is only 16 feet above the B seam, and where the latter has been worked out, the air escapes from the Rider seam through the broken strata. On my last visit to the mine, I stopped further advance work in the rise workings, owing to danger to the employes from squeezes and insufficient ventilation. Drainage good.

Juniata No. 3.—This mine was formerly known as Sonman No. 1. It has been re-opened to mine some of the Rider seam coal. Ventilation and drainage good.

W. H. HUGHES AND COMPANY

Hughes No. 2.—Ventilation and drainage fair.

ANDERSON COAL MINING COMPANY

Peerless Nos. 1 and 2.—Ventilation during the summer months was not satisfactory. It was improved the latter part of the year by making an opening to the surface at the face of the workings. Drainage good.

LEAHEY COAL MINING COMPANY

Moshannon No. 2.—Ventilation and drainage fair. The main return airway is in bad condition, due to the excessive heat from steam pipes which causes the roof to break.

BEAR ROCK COAL COMPANY

Bear Rock No. 1.—Ventilation and drainage fair.

JOHN A. LEAP

Plane—Ventilation fair. Drainage poor.

STANDARD COAL COMPANY

Standard No. 1.—Ventilation and drainage fair.

LEAP COAL MINING COMPANY

Leap No. 1.—Ventilation very poor during the greater part of the year. On one of my visits I requested that the mine be closed until the ventilation was improved. The management then installed a fan which has improved conditions. Drainage good.

JAMES HARRIS AND SONS

Harris No. 1.—Ventilation and drainage fair.

SUGAR RUN COAL MINING COMPANY

Ajax No. 1.—Ventilation good. Drainage is inadequate.

T. C. HARDING

Beaver Dam—Ventilation, drainage and general condition good.

ROBERT SMITH COAL MINING COMPANY

Kokomo—Ventilation and drainage were poor in the early part of the year, but have since been improved considerably.

RICHLAND COAL AND MINING COMPANY

Superior Nos. 4 and 6.—No. 4 opening employs only a few men who mine the coal in the C seam at the mouth of the drift. No. 6 opening is for mining the D seam and is troubled with steep grades, thin coal, sand rock roof and hard bottom. Ventilation and drainage fair.

HENDERSON, HUGHES AND COMPANY

Big Bend No. 6.—Ventilation poor. The coal now being mined is surrounded by crop and old workings. Drainage fair.

BENS-CREEK SONMAN COAL COMPANY

Bens-Creek Shaft—Abandoned. The shaft and main dip roadway are kept open as a second opening for the Sonman Shaft. Both mines are connected.

F. X. BRADLEY

Bradley No. 1.—Came under the law only in the early part of the year. Ventilation and drainage poor.

BENS-CREEK COAL MINING COMPANY

Maple Ridge—A new mine opened in the Rider seam. It is in course of development. The second opening was not made at the time of my visit, but on my request work was commenced on it without any delay.

GEORGE MAZENKO

Flinton No. 1.—This mine has employed less than ten men since early in the year. The coal is very thin and it is difficult to get men to mine it. Ventilation and drainage good.

LOUDON AND PAGE

Russet No. 1.—A new mine opened in the A seam. A second opening had not been made at the time of my visit, but on my request work was commenced to make the second opening at once. Ventilation and drainage fair.

DEXCAR COAL MINING COMPANY

Claire—Ventilation and drainage good.

FALLEN TIMBER COAL COMPANY

Fallen Timber No. 1.—A new mine opened in the E seam. Ventilation and drainage fair.

IMPROVEMENTS

PENNSYLVANIA COAL AND COKE CORPORATION

Pennsylvania No. 1.—Graded and re-laid 4,070 feet of track for motor haulage, dispensing with plane and rope haulage.

Pennsylvania No. 7.—Are driving two entries to a point where an air shaft will be put down for the installation of a high speed fan to improve the ventilation.

Pennsylvania No. 9.—Made 3,500 feet of roadway for traveling and airway. It is lighted with electric lights its entire length. This new airway eliminates all doors on the main haulage roads. Installed telephone system from the E and B seams to engine house and office on the surface. Installed at the landing of shaft in the E seam automatic safety gates and throw switches on track. Erected slack bin and scraper line to supply coal to the ovens. Developed the B seam in the shaft. The bottom of the shaft is timbered with steel supports for 60 feet on both sides of the shaft. Supports are put in a concrete base. Have driven during the year over 10,000 feet of heading, having two distinct motor hauls on both sides of the shaft, laid with 40 pound steel rails. The seam is very thin, which makes it an expensive proposition.

Pennsylvania No. 10.—Installed telephone system connecting all the principal parts of the mine, including outside office and substations. Improved the drainage by putting down bore hole near the face of the dip workings and pumping water through it to the surface. Improved the ventilation by re-surfacing with cement a large number of air stoppings. Installed four 4-0 lines of copper wire from top of bore hole 3,600 feet west of No. 2 station to give No. 7 mine better power. Put down No. 2 bore hole 500,000 C. M. cables.

COMMERCIAL COAL MINING COMPANY

Commercial Nos. 3, 4 and 5.—Have abandoned the use of boilers and now receive their power from the Penn Central Light and Power Company.

VINTON COLLIERY COMPANY

Vinton No. 6.—Have built two overcasts connecting the workings with Vinton No. 5, which was abandoned several years ago, draining the water from No. 5 and improving the ventilation. Have made more than 2,000 feet of motor haulage road through the measures, which will dispense with the present rope haulage system.

SONMAN SHAFT COAL COMPANY

Sonman Shaft—Improved the ventilation by widening the main dip air course, building one overcast and 50 stone stoppings faced with cement, and installing a 9 by 5 by 1 foot 6 inches Jeffrey high pressure fan. Installed safety gates at surface landing of shaft and a Welch overwinding device on the hoisting engine.

Sonman Slope—Increased the volume of air. Changed from the use of black powder to permissible explosives and incombustible tamping. Made 7 shelter holes along the slope. Built one overcast in masonry. Built 20 air stoppings faced with cement.

TAYLOR AND McCOY COAL AND COKE COMPANY

Gallitzin Shaft—Installed a Welch overwinding safety device on the hoisting engine and safety gates at surface landing of shaft.

ALTOONA COAL AND COKE COMPANY

Delaney No. 5.—Ventilation and drainage are being improved by driving the main dip entry to connect with an opening to the surface in the valley below.

TUNNEL COALING COMPANY

Tunnel No. 1.—Improved the ventilation by sinking a 12 by 14 foot shaft, 50 feet deep, at the face of the workings, to be used for ventilation and as a stairway.

SPRINGFIELD COAL MINING COMPANY

Springfield No. 1.—Improved the ventilation, built 45 cement air stoppings, and one cement overcast. Installed electric haulage replacing rope haulage. Introduced safety lamps where needed and employed two fire bosses; changed from the use of black powder to permissible explosives and incombustible tamping.

W. H. HUGHES AND COMPANY

Hughes No. 2.—Ventilation improved by repairing 65 air stoppings with cement surface and cleaning main airway. Drainage improved by putting down a 16-inch bore hole 250 feet and installing a powerful pump at bottom of bore hole.

LEAP COAL MINING COMPANY

Leap No. 1.—Installed a 12-foot Stine disc fan.

ROBERT SMITH COAL MINING COMPANY

Kokomo—Made new airway from furnace to face of mine.

DEXCAR COAL MINING COMPANY

Claire—Ventilation improved by installing a 14 by 4 by 4 feet 5 inches Brazil fan, replacing a 4 foot Sturtevant fan, and improving the airway.

PROSECUTIONS FOR VIOLATION OF THE MINING LAWS

January 22.—Peter Rebinsky, miner, Vinton No. 6 mine, Vinton Colliery Company, plead guilty before the court at Ebensburg, Cambria County, to passing a danger board. Was sentenced to 90 days in jail.

February 14.—Mike Babitch and Charley Dyick, miners, Vinton No. 6 mine, Vinton Colliery Company, plead guilty before the court at Ebensburg, Cambria County, to passing a danger board. Each was sentenced to pay a fine of $60.00 and costs.

December 24.—John Youckon, miner, Commercial No. 5 mine, Commercial Coal Mining Company. Charge: Taking black powder into the mine. He gave bail for March term of court at Ebensburg, Cambria County.

MINE FOREMEN'S, ASSISTANT MINE FOREMEN'S AND FIRE BOSSES' EXAMINATIONS

The annual examination of applicants for certificates of qualification as mine foremen, assistant mine foremen and fire bosses was held in the P. R. R. Y. M. C. A. Building, Altoona, May 6. 7 and 8, 1913. The Board of Examiners was composed of Joseph Williams, Inspector, and F. P. McFarland, Operator. The third member of the Board had not been appointed to succeed John M. Jones, Mine Foreman.

There were twenty-eight applicants for certificates of qualification as mine foremen and assistant mine foremen, and nine applicants for certificates of qualification as fire bosses.

The following persons passed a satisfactory examination and were granted certificates:

MINE FOREMEN

First Grade

Charles L. Davies, Nant-Y-Glo.

Second Grade

Frank Nicholson, Gallitzin; William Robbins, Coupon; John Davie, Belsano; David Mort, Augustine Yingling, John Harris, Edward H. Leahey, Lilly; Thomas Kavanaugh, John W. Daly, Vintondale.

ASSISTANT MINE FOREMEN

James P. Berry, Nettleton; Thomas Kavanaugh, Vintondale.

FIRE BOSSES

George Bateman, Herbert Slater, Nant-Y-Glo; John Anderson, James P. Berry, Nettleton; Thomas Buckingham, Jesse James Miller, Vintondale; Harry Patterson, Thomas McCarthy, South Fork; Kay Noble Maize, Amsbry.

ELEVENTH DISTRICT

WESTMORELAND AND FAYETTE COUNTIES

Scottdale, Pa., February 5, 1914.

Hon. James E. Roderick, Chief of Department of Mines:

Sir: In compliance with the Act of Assembly of June 9, 1911, I herewith transmit my annual report of the Eleventh Bituminous District for the year ending December 31, 1913.

The production of coal increased 1,104,779 tons over the year 1912, with an increase of four fatal accidents.

Respectfully submitted,

DANIEL R. BLOWER,
Inspector.

SUMMARY OF STATISTICS

Number of mines,	45
Number of mines in operation,	45
Number of tons of coal shipped to market,	2,342,351
Number of tons used at mines for steam and heat,	180,521
Number of tons sold to local trade and used by employes..	63,411
Number of tons used in the manufacture of coke,	5,176,381
Number of tons of coal produced,	7,762,664
Number of tons of coke produced,	3,477,596
Number of coke ovens,	6,782
Number of coke ovens in operation,	4,603
Number of tons of coal produced by pick mining,	6,771,629
Number of tons produced by compressed air machines,	872,315
Number of tons produced by electrical machines,	118,720
Number of persons employed inside of mines,	5,058
Number of persons employed outside, including coke workers,	2,653
Number of persons employed at manufacture of coke,	1,473
Number of fatal accidents inside of mines,	16
Number of fatal accidents outside,	3
Number of non-fatal accidents inside of mines,	36
Number of non-fatal accidents outside,	2
Number of tons of coal produced per fatal accident inside,	485,167
Number of tons produced per fatal accident outside,	2,587,555
Number of tons produced per fatal accident inside and outside,	408,561
Number of persons employed per fatal accident inside,	316
Number of persons employed per fatal accident outside,	884
Number of persons employed per fatal accident inside and outside,	406
Number of persons employed per non-fatal accident inside,	141
Number of persons employed per non-fatal accident outside,	1,327
Number of persons employed per non-fatal accident inside and outside,	203
Number of wives made widows,	12
Number of children made orphans,	25
Number of steam locomotives used inside of mines,	....
Number of steam locomotives used outside,	25
Number of compressed air locomotives used inside,	20
Number of compressed air locomotives used outside,	....
Number of electric motors used inside,	24
Number of electric motors used outside,	2
Number of gasoline locomotives used inside,	....
Number of fans in use,	38
Number of furnaces in use,	6
Number of gaseous mines in operation,	27
Number of non-gaseous mines in operation,	18
Number of new mines opened,	2
Number of old mines abandoned,	3

TABLE A

PRODUCTION OF COAL

Names of Operators	Tons
H. C. Frick Coke Company,	3,277,517
Keystone Coal and Coke Company,	1,889,839
Washington Coal and Coke Company,	1,425,291
Mount Pleasant-Connellsville Coke Company,	350,157
W. J. Rainey,	192,232
Clare Coke Company,	111,866
Bessemer Coke Company,	84,981
Mount Pleasant Coke Company,	78,079
Veteran Coke Company,	75,370
Greensburg Coal Company,	49,841
Wilkey and Feather Coke Company,	39,000
Magee Coke Company,	32,978
Northern-Connellsville Coke Company,	32,802
Connellsville-Mutual Coke Company,	26,231
Connellsville Coke Company,	24,553
Brush Run Coal and Coke Company,	24,402
West Penn Coke Company,	23,270
Youghiogheny Coal Company,	21,180
Perry Coke Company,	3,075
Total,	7,762,664

Production by Counties

Westmoreland,	6,224,627
Fayette,	1,538,037
Total.	7,762,664

TABLE B.—Fatal and non-fatal accidents inside and outside of mines; number of tons of coal produced per accident; number of persons employed; number employed per accident

Names of Operators	Fatal Accidents			Non-Fatal Accidents			Tons of coal produced per fatal accident inside	Tons of coal produced per non-fatal accident insde	Number of employes inside	Number of employes outside	Total number of employes	Number of employes inside per fatal accident	Number of employes outside per fatal accident	Number of employes inside per non-fatal accident	Number of employes outside per non-fatal accident
	Inside	Outside	Total	Inside	Outside	Total									
H. C. Frick Coke Co.,	6	2	8	6	......	6	546,253	546,253	2,106	1,411	3,517	351	705	351	....
Keystone Coal and Coke Co.,	6	1	7	25	1	26	314,973	75,594	1,273	219	1,492	212	219	51	219
Washington Coal and Coke Co.,	1	......	1	1	......	1	1,425,291	1,425,291	844	466	1,310	844	....	844	....
Mount Pleasant-Connellsville Coke Co.,	......	......	......	1	......	1	....	350,157	190	92	282	....	....	190	....
W. J. Rainey,	1	......	1	1	......	1	192,282	192,282	110	97	207	110	....	110	....
Bessemer Coke Co.,	1	......	1	1	......	1	84,981	84,981	57	49	106	57	....	57	....
Mount Pleasant Coke Co.,	......	......	......	1	......	1	....	78,079	82	28	60	....	....	82	....
Greensburg Coal Co.,	......	......	......	......	1	1	....	....	99	35	134	....	....	....	35
Connellsville Coke Co.,	1	......	1	......	......	......	24,553	....	17	10	27	17	....	....	....
Miscellaneous Companies,	......	......	......	......	......	......	....	....	330	246	576	....	....	....	....
Totals and averages for district,	16	3	19	36	2	38	485,167	215,329	5,058	2,653	7,711	316	884	141	1,327

TABLE C.—Classification of Fatal Accidents Inside and Outside of Mines

	Months													
	January	February	March	April	May	June	July	August	September	October	November	December	Totals	Percentages
Causes of Accidents Inside														
Falls of coal,	...	1	....	....	....	1	....	....	....	....	....	....	2	12.50
Falls of slate,	....	1	....	....	....	....	1	....	....	....	....	....	2	12.50
Falls of roof,	....	....	4	....	....	....	1	1	....	....	1	1	8	50.00
Mine cars,	....	....	....	....	1	....	....	....	....	2	1	....	4	25.00
Totals,	....	2	4	....	1	1	2	1	....	2	2	1	16	100.00
Causes of Accidents Outside														
Cars,	1	....	....	....	....	1	....	....	....	....	....	....	2	66.67
Burned by fire,	....	....	1	....	....	....	....	....	....	....	....	....	1	33.33
Totals,	1	....	1	....	....	1	....	....	....	....	....	....	3	100.00
Grand totals inside and outside,	1	2	5	....	1	2	2	1	....	2	2	1	19	......

TABLE D.—Classification of Non-Fatal Accidents Inside and Outside of Mines

	Months													
	January	February	March	April	May	June	July	August	September	October	November	December	Totals	Percentages
Causes of Accidents Inside														
Falls of coal,	1	....	....	1	....	....	....	2	1	1	....	....	6	16.67
Falls of slate,	1	1	2	....	....	1	....	....	4	....	....	2	11	30.56
Falls of roof,	....	....	....	....	....	....	1	....	....	....	1	1	3	8.33
Mine cars,	....	....	1	1	1	1	....	1	....	2	....	2	9	25.00
Explosions of powder and dynamite,	1	....	....	....	....	....	....	1	....	....	....	....	2	5.56
Blasts, premature and otherwise,	....	....	....	...	1	1	....	....	....	....	....	....	2	5.56
Mules,	....	1	....	....	....	....	....	....	....	....	....	....	1	2.78
Machinery,	....	....	....	....	....	....	....	....	....	....	1	....	1	2.78
By explosion of acetylene lamp,	....	....	....	....	....	1	....	....	....	....	....	....	1	2.78
Totals,	3	2	3	2	2	4	1	4	5	3	2	5	36	100.00
Causes of Accidents Outside														
Cars,	....	....	....	....	....	1	....	....	....	....	....	....	1	50.00
Struck by rope,	....	....	....	....	....	....	....	....	....	....	....	1	1	50.00
Totals,	....	....	....	....	....	1	....	....	....	....	....	1	2	100.00
Grand totals inside and outside	3	2	3	2	2	5	1	4	5	3	2	6	38	......

TABLE E.—Occupations of Persons Killed or Fatally Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
Inside													
Miners,	....	2	1	....	....	1	2	1	....	....	1	....	8
Drivers and runners,	....	....	1	....	....	....	....	....	....	2	....	....	3
Company men,	....	....	2	....	1	....	....	....	....	....	1	1	5
Totals,	....	2	4	....	1	1	2	1	....	2	2	1	16
Outside													
Coke employes,	....	....	1	....	....	1	....	....	....	....	....	....	2
Trip runners,	1	....	....	....	....	....	....	....	....	....	....	....	1
Totals,	1	....	1	....	....	1	....	....	....	....	....	....	3
Grand totals inside and outside,	1	2	5	....	1	2	2	1	....	2	2	1	19

TABLE F.—Occupations of Persons Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
Inside													
Miners,	2	1	1	1	2	3	....	3	3	1	....	2	19
Machine runners,	....	....	....	....	....	....	....	....	....	....	1	....	1
Machine loaders,	....	....	1	....	....	....	....	....	....	....	....	....	1
Drivers and runners,	....	1	1	1	....	1	....	1	....	1	1	1	8
Company men,	1	....	....	....	....	....	1	....	2	1	....	2	7
Totals,	3	2	3	2	2	4	1	4	5	3	2	5	36
Outside													
Company men,	....	....	....	....	....	1	....	....	....	....	....	1	2
Totals,	....	....	....	....	....	1	....	....	....	....	....	1	2
Grand totals inside and outside,	3	2	3	2	2	5	1	4	5	3	2	6	38

TABLE G.—Nationality of Persons Killed or Fatally Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
American,	1	....	1	....	1	....	....	....	....	1	1	....	5
German,	....	....	1	....	....	....	1	....	....	....	....	....	2
Polish,	....	....	1	....	....	1	....	....	....	....	1	1	4
Slavonian,	....	1	....	....	....	....	....	....	....	1	....	....	2
Russian,	....	....	1	....	....	....	....	....	....	....	....	....	1
French,	....	....	....	....	....	....	....	1	....	....	....	....	1
Horwat,	....	1	1	....	....	1	1	....	....	....	....	....	4
Totals,	1	2	5	....	1	2	2	1	....	2	2	1	19

TABLE H.—Nationality of Persons Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
American,	1	1	....	1	....	....	....	....	1	....	1	2	7
Polish,	....	....	....	....	1	2	1	1	....	1	....	....	6
Italian,	....	....	2	1	....	2	....	2	1	....	....	1	9
Slavonian,	....	1	....	....	1	1	....	....	2	2	....	1	8
Lithuanian,	....	....	....	....	....	....	....	1	1	....	....	....	2
Austrian,	....	....	....	....	....	....	....	....	....	....	1	1	2
Russian,	....	....	....	....	....	....	....	....	....	....	....	1	1
Bohemian,	....	....	1	....	....	....	....	....	....	....	....	....	1
Horwat,	2	....	....	....	....	....	....	....	....	....	....	....	2
Totals,	3	2	3	2	2	5	1	4	5	3	2	6	38

TABLE I.—Operators and mines, kind of openings, type and size of fans, size of furnaces, volume of air produced by fan or furnace per minute, number of splits of air currents and number of persons employed inside

Names of Operators and Mines	Kind of opening	Gaseous or non-gaseous	Method of ventilation	Diameter of fan in feet and inches	Width of blades in feet and inches	Depth of blades in feet and inches	Number of revolutions per minute	Water gauge developed—in inches	Name of fan	Power used	Area of furnace bars in square feet	Number of splits of air currents	Number of cubic feet of air per minute entering the mine at inlet	Total number of cubic feet of air per minute circulating in all the splits	Number of cubic feet of air per minute passing out at outlet	Number of persons employed inside
H. C. Frick Coke Co																
Brinkerton, ...	Drift, ...	Gaseous, ..	Fan, ...	20.0	6.0	5.0	65	.8	Guibal, ...	Steam,......	..	3	93,840	46,500	94,300	82
Buckeye, ...	Slope,.....	Gaseous, ..	Fan, ...	16.0	4.5	4.3	100	1.4	Guibal, ...	Steam,......	..	2	50,960	30,240	52,420	58
Calumet, ...	Shaft,.....	Gaseous, ..	Fan, ...	20.0	5.8	6.0	72	1.8	Guibal, ...	Steam,......	..	4	110,240	55,220	112,300	107
Chambers, ...	Drift, ...	Non-gas., .	Fan, ...	12.5	8.7	3.8	75	.5	Guibal, ...	Steam,......	..	..	††	††	††	62
Hecla No. 1, ...	Shaft,.....	Gaseous, ..	Fan, ...	18.0	5.4	5.0	95	2.5	Guibal, ...	Steam,......	..	5	107,420	86,160	109,300	131
Hecla No. 2, ...	Shaft,.....	Gaseous, ..	Fan, ...	30.0	10.4	8.8	50	2.0	Guibal, ...	Steam,......	..	6	104,200	76,940	108.300	104
Hecla No. 3, ...	Shaft,.....	Gaseous, ..	Fan, ...	15.0	7.5	4.0	110	1.6	Capell, ...	Steam,......	..	6	101,580	74,110	103.400	150
Mammoth Shaft, ...	Shaft,.....	Gaseous, ..	Fan.	18.0	5.0	1.5	110	3.2	Jeffrey, ...	Steam,......	..	7	166,950	106,900	167,300	213
Mammoth Slope, ...	Slope,.....	Gaseous, ..	Fan, ...	16.0	4.5	3.8	90	1.0	Guibal, ...	Steam,......	..	2	63,700	40,750	64,750	63
Marguerite, ...	Slope,.....	Gaseous, ..	Fan, ...	16.0	10.0	4.0	110	1.9	Capell, ...	Steam,......	..	4	121,000	63.600	128,000	145
Mutual, ...	Slope,.....	Gaseous, ..	Fan, ...	16.0	5.2	5.0	80	1.3	Guibal, ...	Steam,......	..	6	63,800	51,070	65.960	75
Painter, ...	Drift, ...	Non-gas., .	Fan, ...	16.0	5.0	4.0	32	.2	Guibal, ...	Steam,......	..	1	25,200	13,200	27,200	14
Standard No. 2, ...	Shaft,.....	Gaseous, ..	Fan, ...	26.0	7.0	7.0	85	3.0	Capell, ...	Steam,......	..	7	224,730	163,450	228,960	375
Standard No. 3, ...	Shaft,.....	Gaseous, ..														
Standard Slope, ...	Slope,.....	Gaseous, ..	Fan, ...	25.0	9.0	7.4	50	1.0	Guibal, ...	Steam,......	..	4	95,400	60,300	98,320	95
United, ...	Shaft,.....	Gaseous, ..	Fan, ...	20.0	6.0	6.0	70	1.0	Guibal, ...	Steam,......	..	5	104,400	70,660	105,300	187
Keystone Coal and Coke Co.																
Carbon, ...	Slope,.....	Gaseous, ..	Fan, ...	13.5	5.0	4.3	126	1.5	Capell, ...	Steam,......	..	7	117,560	89,280	118,940	283
Crows Nest, ...	Slope,.....	Gaseous, ..	†	......	......	......	......	......	....	....	..	7	103,240	81,320	106,100	445
Greensburg No. 1, ...	Slope,.....	Gaseous, ..	Fan, ...	12.0	5.5	3.5	102	1.0	Guibal, ...	Steam,......	..	1	26,100	14,400	28,300	42
Greensburg No. 2, ...	Slope,.....	Gaseous, ..	Fan, ...	16.0	7.0	4.5	124	2.8	Capell, ...	Steam,......	..	6	129,600	60,190	130,900	205
Greensburg No. 3, ...	Slope,.....	Gaseous, ..	Fan, ...	12.0	3.5	3.0	104	.8	Brazil, ...	Steam,......	..	1	56,000	26,460	58,000	85
Hempfield No. 1, ...	Slope.....	Gaseous, ..	Fan.	16.0	7.0	6.0	146	3.3	Capell.	Steam,......	..	3	50,440	41,700	51,300	168

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†Ventilated by fan at Hempfield No. 1.
††No air measurements taken.

Hempfield No. 2, ...	Drift, ...	Non-gas., .	Furnace, ..	......	......	......	....	......	....	....	6	1	12,600	9,100	14,500	17
Hempfield No. 3, ...	Drift, ...	Non-gas., .	Fan, ...	12.0	4.0	4.0	66	.3	Cole, ...	Steam, ...	..	1	23,050	17,150	29,900	23
Seaboard Shaft, ...	Shaft, ...	Gaseous, ..	‡	......	......	......	......	......	....	....	..	1	15,360	9,000	18,420	17
Washington Coal and Coke Co.																
Washington No. 1, ...	Shaft, ...	Gaseous, ..	Fan, ... Fan, ...	25.0 10.0	8.0 3.4	7.7 2.6	65 75	2.5 2.0	Vulcan, ... Brazil, ...	Steam, ... Compressed air.		6	158,850	97,200	160,850	335
Washington No. 2, ...	Slope, ...	Gaseous, ..	Fan, ... Fan, ...	15.0 16.0	7.5 8.0	7.5 8.0	120 100	2.0 3.2	Capell, ... Capell, ...	Steam, ... Steam, ...		6	191,800	107,130	192,530	304
Washington No. 3, ...	Slope, ...	Gaseous, ..	Fan, ...	20.0	7.0	7.0	85	1.5	Brazil, ...	Steam, ...	..	2	46,300	35,600	47,600	55
Mount Pleasant-Connellsville Coke Co.																
Mount Pleasant, ...	Shaft, ...	Gaseous, ..	Fan, ...	16.0	6.0	5.0	92	1.0	Capell, ...	Steam, ...	..	3	62,940	40,280	64,100	171
W. J. Rainey																
Acme, ...	Shaft, ...	Gaseous, ..	Fan, ...	9.0	7.0	4.0	184	1.0	Capell, ...	Steam, ...	..	3	72,280	47,320	78,300	93
Clare Coke Co.																
Clare No. 2, ...	Slope, ...	Non-gas., .	Fan, ...	12.0	4.0	4.0	50	.2	Cole, ...	Steam, ...	..	1	15,180	10,560	16,800	16
Clare No. 3, ...	Drift, ...	Non-gas., .	Fan, ...	13.0	4.0	4.0	56	.3	Cole, ...	Steam, ...	..	3	25,800	20,200	26,300	56
Bessemer Coke Co.																
Humphreys, ...	Slope, ...	Gaseous, ..	Fan, ...	14.0	4.3	4.0	79	.3	Guibal, ...	Steam, ...	..	2	39,000	26,100	40,100	61
Mount Pleasant Coke Co.																
Boyer No. 2, ...	Slope, ...	Non-gas., .	Fan, ...	13.5	4.0	4.0	63	.4	Brazil, ...	Steam, ...	..	1	39,600	15,120	40,900	31
Veteran Coke Co.																
Veteran, ...	Drift, ...	Non-gas., .	Fan, ...	12.0	3.8	3.4	100	.3	Brazil, ...	Steam, ...	..	1	22,500	14,400	23,100	39
Greensburg Coal Co.																
Hawksworth, ...	Shaft, ...	Non-gas., .	Fan, ...	15.0	5.0	2.4	25	.1	Capell, ...	Steam, ...	..	2	20,280	19,530	21,280	69
Wilkey and Feather Coke Co.																
Anica, ...	Drift, ...	Non-gas., .	Fan, ...	12.0	3.5	3.5	74	.3	Brazil, ...	Steam, ...	..	1	29,160	13,920	30,920	24
Magee Coke Co.																
Magee, ...	Shaft, ...	Non-gas., .	Fan, ...	18.0	5.0	4.5	52	.5	Brazil, ...	Steam, ...	..	1	47,450	24,500	49,000	19
Northern-Connellsville Coke Co.																
Marthabel, ...	Slope, ...	Non-gas., .	Furnace, ..	......	......	......	......	......	....	....	24	3	20,800	19,120	21,840	24
Connellsville-Mutual Coke Co.																
Love, ...	Drift, ...	Non-gas., .	Furnace, ..	......	......	......	......	......	....	....	16	1	13,500	9,800	14,000	20

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‡Ventilated by fan at Greensburg No. 2.

TABLE I.—Continued

Names of Operators and Mines	Kind of opening	Gaseous or non-gaseous	Method of ventilation	Diameter of fan in feet and inches	Width of blades in feet and inches	Depth of blades in feet and inches	Number of revolutions per minute	Water gauge developed—in inches	Name of fan	Power used	Area of furnace bars in square feet	Number of splits of air currents	Number of cubic feet of air per minute entering the mine at inlet	Total number of cubic feet of air per minute circulating in all the splits	Number of cubic feet of air per minute passing out at outlet	Number of persons employed inside
Connellsville Coke Co. Dexter, ...	Drift, ...	Non-gas., .	Fan, ...	4.0	1.5	3.4	600	.3	Stine, ...	Electricity, .	..	1	13,600	9,000	13,700	15
Brush Run Coal and Coke Co. Brush Run, ...	Slope, ...	Non-gas., .	Furnace, ..	.....	......	......	......	......	....	....	42	1	9,400	7,560	9,500	18
West Penn Coke Co. West Penn, ...	Drift, ...	Non-gas., .	Furnace, ..	......	......	......	......	......	....	....	30	1	8,140	4,320	8,260	20
Youghiogheny Coal Co. Florence, ...	Drift, ...	Non-gas., .	Fan.	8.0	1.5	4.0	192	.3	Stine, ...	Electricity, .	..	2	31,200	23,440	32,300	44
Perry Coke Co. Martin, ...	Drift, ...	Non-gas.,	Furnace, ..	......	......	......	......	......	....	....	20	..	††	††	††	17

††No air measurements taken.

TABLE J.—Mines using coal cutting machines, power used, geological and local names of seams, thickest and thinnest seams where machines are used, and the approximate number of tons produced by machines

Names of Operators	Names of Mines	Kind of opening	Gaseous or non-gaseous	Number of mining machines used	Power used by machines	Geological and local names of seams	Average thickness in inches	Height of Seam in Inches		Approximate number of tons produced by machines
								Thickest	Thinnest	
H. C. Frick Coke Co.,	Marguerite,	Slope,	Gaseous,	8	Compressed air,	Pittsburgh,	90	108	72	109,474
	Standard Nos. 2 and 3,	Shafts,	Gaseous,	1	Compressed air,	Pittsburgh,	85	110	60	7,781
Totals,				9						117,255
Keystone Coal and Coke Co.,	Carbon,	Slope,	Gaseous,	2	Compressed air,	Pittsburgh,	85	92	78	26,940
	Crows Nest,	Slope,	Gaseous,	4	Electricity,	Pittsburgh,	90	120	60	48,774
	Greensburg No. 2,	Slope,	Gaseous,	18	Compressed air,	Pittsburgh,	83	84	82	160,154
	Hempfield No. 1,	Slope,	Gaseous,	1	Electricity,	Pittsburgh,	90	120	60	440
Totals,				25						236,308
Washington Coal and Coke Co.,	Washington No. 1,	Shaft,	Gaseous,	15	Compressed air,	Pittsburgh,	93	108	78	339,801
	Washington No. 2,	Slope,	Gaseous,	12	Compressed air,	Pittsburgh,	92	100	84	205,970
	Washington No. 3,	Slope,	Gaseous,	2	Compressed air,	Pittsburgh,	80	84	76	22,195
Totals,				29						567,966
Greensburg Coal Co.,	Hawksworth,	Shaft,	Non-gas.,	2	Electricity,	Pittsburgh,	82	86	78	48,326
Youghiogheny Coal Co.,	Florence,	Drift,	Non-gas.,	3	Electricity,	Upper Freeport,	46	52	40	21,180
Grand totals,				68						991,035

TABLE 1.—Operators, Location of Mines, Railroads, etc.

Names of Operators and Mines	County	Name of General Superintendent	Post Office	Name of Superintendent	Post Office	Railroad to Mine
H. C. Frick Coke Co.						
Brinkerton,	Westmoreland	W. H. Clingerman,	Scottdale,	J. H. Bitz,	United,	Pennsylvania
Buckeye,				J. Q. Finch,	Mount Pleasant,	B. and O. and Penna.
Calumet,				Robert Ramsey,	Calumet,	Pennsylvania
Chambers,				T. L. Doorley,	Greensburg,	Pennsylvania
Hecla Nos. 1 and 3,				A. H. Pollins,	South West,	Pennsylvania
Hecla No. 2,				E. F. Wolfersberger,	Trauger,	Pennsylvania
Mammoth Shaft,				F. K. Drill,	Mammoth,	Pennsylvania
Mammoth Slope,				F. K. Drill,	Mammoth,	Pennsylvania
Marguerite,				T. L. Doorley,	Greensburg,	Pennsylvania
Mutual,				Robert Ramsey,	United,	Pennsylvania
Painter,	Fayette,			James Lynch,	Scottdale,	B. and O.
Standard Nos. 2 and 3,	Westmoreland			J. S. Mack,	Mount Pleasant,	B. and O. and Penna.
Standard Slope,				J. S. Mack,	Mount Pleasant,	B. and O. and Penna.
United,				Robert Ramsey,	United,	Pennsylvania
Keystone Coal and Coke Co.						
Carbon,	Westmoreland,	H. F. Bovard,	Greensburg,	Henry Welty,	Greensburg,	Pennsylvania
Crows Nest,				W. E. Henderson,	Greensburg,	
Greensburg Nos. 1 and 3,				A. W. White,	Greensburg,	
Greensburg No. 2,				H. H. Null,	Greensburg,	
Hempfield Nos. 1,* 2, and 3,				W. E. Henderson,	Greensburg,	
Seaboard Shaft,				Henry Welty,	Greensburg,	
Washington Coal and Coke Co.						
Washington Nos. 1, 2 and 3,	Fayette,	O. S. Blair,	Star Junction,	R. M. Pollock,	Star Junction,	P. and L. E. and B. and O.
Mount Pleasant-Connellsville Coke Co.						
Mount Pleasant,	Westmoreland,	W. A. Wilson,	Greensburg,	William McMurray,	Mount Pleasant,	Pennsylvania
W. J. Rainey						
Acme,	Westmoreland,	L. L. Willard,	Uniontown,	A. A. Mitchell,	Mount Pleasant,	Pennsylvania
Clare Coke Co.						
Clare Nos. 2* and 3,	Westmoreland,	L. E. Walters,	Greensburg,	Aaron Koon,	Latrobe,	Pennsylvania
Bessemer Coke Co.						
Humphreys,	Westmoreland,	W. L. Affelder,	Pittsburgh,	Barclay Preston,	Greensburg,	Pennsylvania
Mount Pleasant Coke Co.						
Boyer No. 2,	Westmoreland,	W. A. Wilson,	Greensburg,	W. H. Ahlborn,	Mount Pleasant,	Pennsylvania

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*Abandoned.

Veteran Coke Co.						
Veteran,	Westmoreland,	W. A. Wilson,	Greensburg,	M. E. Strickler,	Mount Pleasant,	Pennsylvania
Greensburg Coal Co.						
Hawksworth,*	Westmoreland,	Joseph D. Wentling,	Greensburg,	Joseph D. Wentling,	Greensburg,	Pennsylvania
Wilkey and Feather Coke Co.						
Anica,	Fayette,	W. H. Wilkey,	Uniontown,	James B. Cramer,	Whitsett,	P. and L. E.
Magee Coke Co.						
Magee,	Westmoreland,	J. W. Abraham,	Uniontown,	G. M. Treagor,	Latrobe,	Pennsylvania
Northern-Connellsville Coke Co.						
Marthabel,	Westmoreland,	Samuel Cummings,	Acme,	George W. Campbell,	Connellsville,	Pennsylvania
Connellsville-Mutual Coke Co.						
Love,	Westmoreland,	John R. Byrne,	Scottdale,	....	....	Pennsylvania
Connellsville Coke Co.						
Dexter,	Fayette,	J. Fred Kurtz,	Connellsville,	James J. Brown,	Scottdale,	B. and O.
Brush Run Coal and Coke Co.						
Brush Run,	Westmoreland,	James S. Hitchman,	Mount Pleasant,	Robert Burns,	Mount Pleasant,	B. and O.
West Penn Coke Co.						
West Penn,	Westmoreland,	H. A. Davis,	Pittsburgh,	D. R. Davis,	Scottdale,	Pennsylvania
Youghiogheny Coal Co.						
Florence,*	Fayette,	Frank A. Tarr,	Dawson,	James Welling,	Dawson,	B. and O.
Perry Coke Co.						
Martin,†	Fayette,	Harry G. Neff,	Star Junction,	Harry G. Neff,	Star Junction,	P. and L. E.

*New mine.
†Abandoned.

TABLE 2.—Number of tons of coal mined and tons of coke produced, number of days worked, number of persons employed, number killed and injured, quantity of powder, dynamite and permissible explosives used, etc.

Names of Operators and Mines	County	Number of tons of coal shipped to market	Number of tons used at mines for steam and heat	Number of tons sold to local trade and used by employes	Number of tons used in manufacture of coke	Total production of coal in tons	Total production of coke in tons	Number of coke ovens	Number of days worked	Number of employes	Number of fatal accidents	Number of non-fatal accidents	Explosives			Number of horses and mules
													Number of pounds of powder used	Number of pounds of dynamite used	Number of pounds of permissible explosives used	
H. C. Frick Coke Co.																
Brinkerton,	Westmoreland,	....	3,827	1,836	224,961	230,624	149,973	240	289	175	....	....	....	....	22,425	29
Buckeye,		....	3,684	1,061	92,546	97,291	61,697	300	298	129	....	....	....	....	9,385	20
Calumet,		....	6,356	1,893	204,219	212,468	136,144	260	292	217	....	....	....	....	....	28
Chambers,		19,394	154	13	....	19,561	....	......	134	69	....	....	....	....	840	12
Hecla No. 1,		1,681	7,212	1,790	238,378	249,061	158,950	272	291	217	....	....	....	....	14,000	41
Hecla No. 2,		....	10,796	1,917	188,274	200,987	125,514	500	293	231	....	....	....	350	17,875	37
Hecla No. 3,		....	6,686	2,619	302,763	312,068	201,841	300	291	298	....	....	....	....	13,000	41
Mammoth Shaft,		1,790	18,142	2,518	398,189	420,589	265,425	510	293	406	1	2	....	....	6,451	70
Mammoth Slope,									205	132	....	....	....	....	5,279	
Marguerite,		2,282	10,397	4,057	287,358	304,094	191,571	400	291	317	3	....	....	....	44,000	54
Mutual,		....	2,838	1,341	119,488	123,667	79,624	195	291	156	1	....	....	....	15,583	17
Painter,	Fayette,	....	445	460	24,083	24,938	15,987	228	270	29	....	....	....	....	1,800	8
Standard Nos. 2 and 3,	Westmoreland,	....	27,200	7,133	721,085	755,423	480,721	906	293	679	2	3	....	50	61,987	99
Standard Slope,									206	162	1	....	....	....	9,000	19
United,		....	3,305	1,686	321,755	326,746	214,501	350	292	305	....	1	....	....	11,212	48
Totals,	....	25,147	101,042	28,329	3,122,999	3,277,517	2,081,948	4,460	......	3,517	8	6	....	400	233,487	518
Keystone Coal and Coke Co.																
Carbon,	Westmoreland,	406,929	4,430	3,068	43,380	457,807	28,428	57	300	344	1	5	....	....	26,725	33
Crows Nest,		474,657	....	134	....	474,791	....	......	294	485	2	12	....	....	39,500	40
Greensburg No. 1,		85,543	476	736	....	86,755	....	......	304	70	1	1	....	....	11,226	10
Greensburg No. 2,		333,711	8,166	1,898	....	343,775	....	......	292	249	2	1	....	....	24,890	32
Greensburg No. 3,		136,379	1,011	....	....	137,390	....	......	295	95	....	2	....	....	26,400	12

Hempfield No. 1,	Westmoreland,	259,657	6,325	645	....	266,627	....	......	297	191	1	4	....	....	22,100	23
Hempfield No. 2,		20,564	....	....	....	20,564	....	......	285	6	....	....	....	....	875	1
Hempfield No. 3,		81,149	....	1,687	....	82,836	....	......	289	28	....	1	....	....	3,500	3
Seaboard Shaft,		....	14,965	4,329	....	19,294	....	......	308	24	....	....	....	....	1,150	3
Totals,	....	1,798,589	35,378	12,497	43,380	1,889,839	28,428	57	......	1,492	7	26	....	....	156,305	160
Washington Coal and Coke Co.																
Washington No. 1,	Fayette,	194,276	6,717	2,827	478,071	681,891	318,714	500	306	637	....	1	....	....	47,565	68
Washington No. 2,		175,557	19,854	6,015	466,833	668,259	311,222	500	306	604	1	....	....	....	46,222	63
Washington No. 3,		69,498	5,469	674	....	75,641	....	......	301	69	....	....	....	....	4,962	7
Totals,	....	439,331	32,040	9,016	944,904	1,425,291	629,936	1,000	......	1,310	1	1	....	....	98,749	138
Mount Pleasant-Connellsville Coke Co.																
Mount Pleasant,	Westmoreland,	....	1,525	818	347,814	350,157	231,876	310	310	282	....	1	....	....	28,350	43
W. J. Rainey																
Acme,	Westmoreland,	....	1,399	914	189,919	192,232	126,613	200	305	207	1	1	....	....	3,525	21
Clare Coke Co.																
Clare Nos. 2 and 3,	Westmoreland,	....	2,400	600	108,866	111,866	78,764	150	291	150	....	....	....	....	....	15
Bessemer Coke Co.																
Humphreys,	Westmoreland,	....	2,514	676	81,791	84,981	65,854	100	300	106	1	1	....	....	4,000	15
Mount Pleasant Coke Co.																
Boyer No. 2,	Westmoreland,	....	1,362	526	76,191	78,079	50,794	120	310	60	....	1	....	....	2,400	6
Veteran Coke Co.																
Veteran,	Westmoreland,	....	624	468	74,278	75,370	49,519	80	310	72	....	....	....	....	....	7
Greensburg Coal Co.																
Hawksworth,	Westmoreland,	49,778	13	50	....	49,841	....	......	177	134	....	1	....	....	13,500	11
Wilkey and Feather Coke Co.																
Anica,	Fayette,	....	204	12	38,784	39,000	26,728	40	305	41	....	....	....	....	3,500	3
Magee Coke Co.																
Magee,	Westmoreland,	....	1,500	300	31,178	32,978	21,187	40	235	46	....	....	....	....	....	4
Northern-Connellsville Coke Co.																
Marthabel,	Westmoreland,	8,506	152	1,350	22,794	32,802	16,794	40	305	43	....	....	....	....	....	4
Connellsville-Mutual Coke Co.																
Love,	Westmoreland,	....	....	....	26,231	26,231	17,226	32	234	35	....	....	....	....	....	5

TABLE 2.—Continued

Names of Operators and Mines	County	Number of tons of coal shipped to market	Number of tons used at mines for steam and heat	Number of tons sold to local trade and used by employes	Number of tons used in manufacture of coke	Total production of coal in tons	Total production of coke in tons	Number of coke ovens	Number of days worked	Number of employes	Number of fatal accidents	Number of non-fatal accidents	Explosives			Number of horses and mules
													Number of pounds of powder used	Number of pounds of dynamite used	Number of pounds of permissible explosives used	
Connellsville Coke Co. Dexter, ...	Fayette, ...	....	....	3,175	21,378	24,558	17,695	40	308	27	1	....	....	....	700	5
Brush Run Coal and Coke Co. Brush Run, ...	Westmoreland, ..	....	373	4,435	19,594	24,402	14,630	30	273	35	....	....	....	205	....	2
West Penn Coke Co. West Penn, ...	Westmoreland, ..	....	....	65	23,205	23,270	17,404	53	273	44	....	....	....	....	....	8
Youghiogheny 'Coal Co. Florence, ...	Fayette, ...	21,000	....	180	....	21,180	....	......	198	85	....	....	6,250	300	250	8
Perry Coke Co. Martin, ...	Fayette, ...	....	....	....	3,075	3,075	2,200	30	49	25	....	....	....	....	....	2
Grand totals, ...	....	2,342,351	180,521	63,411	5,176,381	7,762,664	3,477,596	6,782	......	7,711	19	38	6,250	905	542,716	975

TABLE 2—Part 2

Names of Operators	County	Number of Boilers					Locomotives				Number of steam engines of all classes	Total horse power	Number of pumps delivering water to surface	Capacity in gallons per minute	Quantity delivered to surface per minute—gallons	Number of electric dynamos	Number of air compressors
		Cylindrical	Horse power	Tubular	Horse power	Total horse power	Gasoline	Steam	Air	Electric							
H. C. Frick Coke Co., ...	Westmoreland Fayette, ...	14	788	95	12,545	13,333	....	15	8	2	92	8,907	53	43,022	13,700	9	23
Keystone Coal and Coke Co., .	Westmoreland, .	......	......	28	4,275	4,275	...	2	9	8	58	3,326	19	22,437	4,475	......	6
Washington Coal and Coke Co.,	Fayette, ...	4	1,200	24	3,125	4,325	...	4	3	13	22	4,765	11	6,000	2,400	6	6
Mount Pleasant - Connellsville Coke Co., ...	Westmoreland, .	......	......	2	700	700	....	....	....	....	6	1,316	1	720	500	2	1
W. J. Rainey, ...	Westmoreland, .	......	......	3	450	450	....	....	....	....	5	260	2	800	390	2	2
Clare Coke Co., ...	Westmoreland, .	1	60	2	160	220	....	3	....	....	5	200	2	450	450	......	2
Bessemer Coke Co., ...	Westmoreland, .	......	......	3	300	300	....	....	....	....	2	150	2	800	300	......	......
Mount Pleasant Coke Co., ...	Westmoreland, .	......	......	1	150	150	...	....	....	....	3	50	....	....	....	......	......
Veteran Coke Co., ...	Westmoreland, .	1	50	2	60	110	....	....	....	....	3	90	1	300	175	......	......
Greensburg Coal Co., ...	Westmoreland, .	......	......	....	....	....	....	....	....	....	......	....	1	150	40	......	......
Wilkey and Feather Coke Co.,	Fayette, ...	......	......	2	40	40	...	....	....	....	......	....	....	....	....	......	......
Magee Coke Co., ...	Westmoreland, .	......	......	2	300	300	....	....	....	....	2	200	2	250	150	......	......
Northern-Connellsville Coke Co.,	Westmoreland, .	......	......	1	30	30	....	....	....	....	1	15	1	110	65	......	......
Brush Run Coal and Coke Co., .	Westmoreland, .	......	......	1	100	100	...	1	....	....	2	80	....	....	....	......	......
West Penn Coke Co., ...	Westmoreland, .	......	......	....	....	....	...	....	....	2	......	....	1	30	30	......	......
Youghiogheny Coal Co., ...	Fayette, ...	......	......	....	....	....	...	....	....	1	......	70	....	....	....	2	......
Totals, ...		20	2,098	166	22,235	24,333	...	25	20	26	201	19,429	96	75,069	22,675	21	40

TABLE 3.—Number of Each Class of Employes Inside and Outside of Mines

Names of Operators	County	Inside												Outside								Grand total inside and outside
		Mine foremen	Assistant mine foremen	Fire bosses	Miners	Machine runners	Machine loaders	Machine scrapers	Drivers and runners	Doorboys and helpers	Company men	All other employes	Total inside	Superintendents	Foremen	Blacksmiths and carpenters	Engineers and firemen	Coke employes	Bookkeepers and clerks	All other employes	Total outside	
H. C. Frick Coke Co.,	Westmoreland,.. Fayette, ...	15	14	29	1,253	9	41	9	159	34	324	219	2,106	13	25	60	100	837	17	359	1,411	3,517
Keystone Coal and Coke Co., ...	Westmoreland, ..	8	6	13	921	16	71	16	119	5	73	25	1,273	6	4	20	27	18	11	133	219	1,492
Washington Coal and Coke Co., ...	Fayette, ...	3	4	9	320	33	186	30	74	....	135	50	844	2	11	19	28	289	8	109	466	1,310
Mount Pleasant-Connellsville Coke Co.,	Westmoreland, ..	1	1	3	125	....	......	....	17	....	41	2	190	1	2	3	5	65	1	15	92	282
W. J. Rainey, ...	Westmoreland, ...	1	1	2	65	....	......	....	10	1	......	30	110	1	1	4	8	63	6	14	97	207
Clare Coke Co., ...	Westmoreland, ...	1	....	....	50	....	......	....	5	....	10	......	66	1	1	2	6	55	....	19	84	150
Bessemer Coke Co., ..	Westmoreland, ...	1	....	1	38	....	......	....	6	2	9	......	57	1	3	2	4	31	....	8	49	106
Mount Pleasant Coke Co., ...	Westmoreland, ...	1	....	....	21	....	......	....	3	....	7	......	32	1	....	1	2	17	1	6	28	60
Veteran Coke Co., ...	Westmoreland, ...	1	....	....	27	....	......	....	4	1	9	1	43	1	....	1	1	20	1	5	29	72
Greensburg Coal Co.,	Westmoreland, ...	1	1	....	6	4	54	4	8	2	19	......	99	1	1	5	2	......	1	25	35	134
Wilkey and Feather Coke Co., ...	Fayette, ...	1	....	....	20	....	......	....	2	....	4	......	27	....	1	1	1	11	....	....	14	41
Magee Coke Co., ...	Westmoreland, ...	1	....	....	18	....	......	....	2	....	3	2	26	1	1	1	3	14	....	....	20	46
Northern-Connellsville Coke Co., ...	Westmoreland, ...	1	....	....	24	....	......	....	2	....	1	......	28	1	....	....	1	11	1	1	15	43
Connellsville Mutual Coke Co., ...	Westmoreland, ...	1	....	....	15	....	......	....	2	....	1	......	19	1	1	1	....	8	1	4	16	35
Connellsville Coke Co.	Fayette, ...	1	....	....	11	....	......	....	2	....	3	......	17	....	....	....	....	9	1	....	10	27
Brush Run Coal and Coke Co., ...	Westmoreland, ...	1	....	....	13	....	......	....	2	....	2	......	18	1	....	1	2	8	1	4	17	35
West Penn Coke Co., .	Westmoreland, ...	1	....	....	16	....	......	....	3	....	3	......	23	1	....	2	....	12	....	6	21	44
Youghiogheny Coal Co.	Fayette, ...	1	....	....	......	6	40	6	5	1	4	......	63	1	....	2	1	......	1	17	22	85
Perry Coke Co., ...	Fayette, ...	1	....	....	12	....	......	....	2	....	2	......	17	1	....	....	....	5	....	2	8	25
Totals, ...	....	42	27	57	2,955	68	392	65	427	46	650	329	5,058	35	51	125	191	1,478	51	727	2,653	7,711

TABLE 3.—Part 2

Names of Operators	County	Average Number of Days Worked												
		January	February	March	April	May	June	July	August	September	October	November	December	Total
H. C. Frick Coke Co.,	Westmoreland, Fayette,	27	23	24	23	27	25	26	23	21	21	17	12	269
Keystone Coal and Coke Co.,	Westmoreland,	27	23	25	24	25	24	26	25	24	25	23	25	296
Washington Coal and Coke Co.,	Fayette,	27	24	26	26	27	25	26	26	26	26	22	23	304
Mount Pleasant-Connellsville Coke Co.,	Westmoreland,	27	24	26	26	27	25	25	26	26	27	25	26	310
W. J. Rainey,	Westmoreland,	27	24	26	25	27	25	26	26	26	27	23	23	305
Clare Coke Co.,	Westmoreland,	25	23	25	24	25	24	25	25	24	25	24	22	291
Bessemer Coke Co.,	Westmoreland,	27	24	25	24	26	22	25	26	26	27	22	26	300
Mount Pleasant Coke Co.,	Westmoreland,	27	24	26	26	27	25	25	26	26	27	25	26	310
Veteran Coke Co.,	Westmoreland,	27	24	26	26	27	25	25	26	26	27	25	26	310
Greensburg Coal Co.,	Westmoreland,	......	......	......	......	......	18	28	28	27	27	25	24	177
Wilkey and Feather Coke Co.,	Fayette,	27	24	26	26	25	24	24	26	25	27	25	26	305
Magee Coke Co.,	Westmoreland,	26	24	26	22	26	22	19	22	18	17	13	......	235
Northern-Connellsville Coke Co.,	Westmoreland,	25	24	26	26	26	25	26	26	24	27	24	26	305
Connellsville-Mutual Coke Co.,	Westmoreland,	27	24	26	26	27	24	26	25	24	5	......	......	234
Connellsville Coke Co.,	Fayette,	26	24	26	27	27	25	26	26	26	27	22	26	308
Brush Run Coal and Coke Co.,	Westmoreland,	26	23	26	25	26	25	16	26	19	20	16	25	273
West Penn Coke Co.,	Westmoreland,	24	23	26	......	26	25	25	28	23	27	23	25	278
Youghiogheny Coal Co.,	Fayette,	......	......	......	......	14	25	28	26	26	27	26	26	198
Perry Coke Co.,	Fayette,	25	24	......	......	......	......	......	......	......	......	......	......	49

TABLE 4.—Fatal Accidents Inside and Outside of Mines

Date of accident		Name of Person	Nationality	Occupation	Age	Married or single	Number of widows	Number of orphans	Name of Mine	County	Nature and Cause of Accident in Brief
Jan.	30	Richard Shelter, ...	American, ..	Trip runner, ..	21	S.	....	....	Crows Nest, .	Westmoreland, .	Killed by cars. He signalled the engineer to lower a trip of four empty mine cars and then attempted to jump on the front car, but slipped and fell, and part of the trip ran over him. Outside.
Feb.	15	Charles Chasalo, ...	Horwat, ...	Miner, ...	35	M.	1	1	Greensburg No. 1, ...		Instantly killed at face of pillar by fall of coal.
	27	John Gretz, ...	Slavonian, .	Miner, ...	50	M.	1	1	Marguerite, .		Killed by fall of slate at face of entry break-through.
March	5	Pete Zalots, ...	Horwat, ...	Miner, ...	37	M.	1	....	Greensburg No. 2, ...		Killed by fall of roof at face of pillar while making a fall.
	20	Mike Chekorie, ... William F. Leahey,..	Russian, ... American, ..	Company man, Company man,	34 44	M. S.	1	3	Marguerite, . Marguerite, .		While digging the corner off a cut-through in order to lay a switch, they exposed a well defined slip, causing a fall of roof which killed Chekorie and fatally injured Leahey.
	27	Henry Poiser, ...	German, ...	Driver, ...	40	M.	1	6	Acme, ...		Killed by fall of roof on entry while passing a car.
	29	Frank Pokery, ...	Polish, ...	Coke employe,.	22	S.	....	....	Standard No. 2, ...		Fatally burned while waiting for his brother to get a screw repaired at machine shop to use on coke machine they were repairing, he sat down on oven door and his clothing caught fire. Outside.
May	6	John Saxton, ...	American, ..	Company man,	65	M.	1	....	Mutual, ...		Instantly killed by trip of empty mine cars on slope.
June	12	Peter Vesnefsky, ...	Polish, ...	Coke employe,.	48	M.	1	3	Standard Slope, ...		Fatally injured by being caught between cars and wall. Outside.
	27	Mike Bolinovich, ...	Horwat, ...	Miner, ...	50	M.	1	2	Crows Nest, .		Instantly killed by fall of coal at face of entry.
July	8	William Henchel, ...	German, ...	Miner, ...	49	M.	1	....	Carbon, ...		Fatally injured by fall of roof at face of pillar while making a fall.
	19	George Bellick, ...	Horwat, ...	Miner, ...	30	M.	1	1	Greensburg No. 2, ...		Killed by fall of slate at face of room.
Aug.	16	August Gaquere, ...	French, ...	Miner, ...	30	S.	....	....	Hempfield No. 2, ...		Instantly killed by fall of roof at face of pillar.

Oct.	15	Steve Benesky, ...	Slavonian, .	Driver, ...	19	S.	....	....	Washington No. 2.	Fayette, ...	Instantly killed by trip of loaded mine cars on entry.
	23	George Kollings, ...	American, ..	Runner, ...	26	M.	1	....	Humphreys, .	Westmoreland, ...	Instantly killed by loaded mine cars on slope.
Nov.	6	Frank Polokosky, ...	Polish, ...	Miner, ...	42	M.	1	8	Dexter	Fayette, ...	Fatally injured by fall of roof at face of pillar.
	28	Ellis Adams, ...	American, ..	Company man,	23	S.	....	....	Mammoth Shaft.	Westmoreland, ...	Instantly killed by air locomotive on entry.
Dec.	9	Charles Gesiensky, ..	Polish, ...	Company man,	24	S.	....	....	Standard No. 2, ...	Westmoreland, ...	Killed by fall of roof on entry. He had taken down some loose roof and commenced to shovel when a fall occurred.

TABLE 5.—Non-Fatal Accidents Inside and Outside of Mines

Date of accident		Name of Person	Nationality	Occupation	Age	Married or single	Name of Mine	County	Nature and Cause of Accident in Brief
Jan.	8	George Riser,	American,	Company man,	42	M.	Crows Nest,	Westmoreland,	Leg fractured by fall of slate on entry.
	11	Steve Medwit,	Horwat,	Miner,	27	S.	Greensburg No. 2,		Leg fractured by fall of coal at face of room.
	23	John Workige,	Horwat,	Miner,	34	M.	Carbon,		Thumb and finger injured by premature explosion of cap.
Feb.	3	Bert Morgan,	American,	Driver,	32	M.	Carbon,		Body injured by being kicked by mule that he was breaking-in on entry.
	18	John Florin,	Slavonian,	Miner,	30	M.	Boyer No. 2,		Back and leg injured by fall of slate at face of pillar.
March	21	Archille Giovanni,	Italian,	Loader,	30	S.	Carbon,		Body bruised by fall of slate at face of room.
	25	James Kenyon,	Italian,	Miner,	25	S.	Crows Nest,		Back broken by fall of slate at face of entry cut-through.
	27	Louis Stefl,	Bohemian,	Driver,	30	M.	Standard No. 2,		Chest and lung injured between car and entry pillar.
April	5	Joseph Valentine,	Italian,	Miner,	29	M	Hempfield No. 1,		Leg and ankle injured by fall of coal at face of room.
	30	Clarence South,	American,	Driver,	19	S.	Crows Nest,		Foot fractured by mine car on entry.
May	2	Joe Matsko,	Slavonian,	Miner,	40	M.	Greensburg No. 3,		Face and chest injured by flying coal from premature blast at face of entry.
	26	Enoch Pozerky,	Polish,	Miner,	47	M.	Greensburg No. 3,		Scalp wounded and head injured by runaway empty mine car on slope.
June	2	John Davis,	Italian,	Miner,	28	S.	Hempfield No. 3,		Two fingers and thumb blown off by explosion of acetylene lamp he was fixing.
	5	Bart Della,	Italian,	Company man,	24	M.	Crows Nest,		Foot crushed by mine car. Outside.
	18	Peter McNoski,	Polish,	Miner,	22	S.	Hempfield No. 1,		Skull fractured by fall of slate at face of room pillar.
	25	Wasko Stroko,	Slavonian,	Miner,	33	S.	Mount Pleasant,		Face injured by explosion. He put his pick into a mis-fired shot.
	27	John Kachewich,	Polish,	Driver,	18	S.	Standard No. 2,		Hand injured. Caught between car and post on entry.
July	10	Walter Tozar,	Polish,	Company man,	24	S.	United,		Leg broken by fall of roof on entry.
Aug.	1	Samuel Undine,	Italian,	Miner,	30	S.	Crows Nest,		Leg fractured by fall of coal at face of entry stumps.

Aug.	21	Charles Gelovesky, ...	Lithuanian,	Driver, ...	24	M.	Crows Nest, ...	Westmoreland, .	Leg fractured. He lost control of a locomotive he was trying to operate and it ran into the face of the entry.
	25	Paul Zune, ...	Polish, ...	Miner, ...	32	M.	Hempfield No. 1, .		Arm fractured by fall of coal at face of room.
	26	Frank Barbery, ...	Italian, ...	Miner, ...	47	M.	Crows Nest, ...		Two fingers blown off and face cut. He exploded three blasting caps in a box by striking a match on same.
Sept.	5	Charles Butcovitch, ..	Lithuanian,	Miner, ...	24	S.	Crows Nest, ...		Leg fractured by fall of slate at face of rib.
	6	Petri Batisk, ...	Italian, ...	Miner, ...	28	M.	Greensburg No. 1,.		Leg broken by fall of slate at face of pillar.
	20	John Oshosky, ...	Slavonian, .	Miner, ...	45	M.	Carbon, ...		Toes injured by fall of coal at face of pillar.
	21	John Ward, ...	American, ..	Company man, ...	56	M.	Acme, ...		Leg broken by fall of slate at face of entry stumps.
	26	Peter Catranish, ...	Slavonian, .	Company man, ...	36	M.	Washington No. 1,.	Fayette, ...	Leg broken by fall of slate on entry.
Oct.	4	John Bortneck, ...	Slavonian, .	Company man, ...	32	M.	Mammoth Shaft, ..	Westmoreland. .	Collar bone broken. Caught between mine car and entry rib.
	18	Frank Mahalick, ...	Polish, ...	Driver, ...	21	S.	Hempfield No. 1, .		Arm fractured. Caught between mine car and room pillar.
	22	Mike Kovitch, ...	Slavonian, .	Miner, ...	37	M.	Crows Nest, ...		Thigh fractured by fall of coal at face of room.
Nov.	18	Nick Bolivitch, ...	Austrian, ...	Machine runner,..	26	S.	Crows Nest, ...		Arm fractured at face of entry by a machine bar with which he was attempting to move a mining machine while it was in motion.
	20	Patrick Galvin, ...	American, ..	Driver, ...	28	M.	Crows Nest, ...		Back and breast injured by fall of roof on entry.
Dec.	1	Dominec Cavalucci, ..	Italian, ...	Company man, ...	24	S.	Hawksworth, ...		Arm broken by a hemp rope which was being used to check a mining machine down an embankment. Outside.
	8	Lawrence Smalley, ...	American,...	Runner, ...	19	S.	Carbon, ...		Foot injured between locomotive and mine car on side track.
	9	John Pelinkish, ...	Russian, ...	Company man, ...	41	M.	Standard No. 2, ...		Leg fractured by fall of roof on entry.
	19	Audy Blismar, ...	Slavonian, .	Miner, ...	49	M.	Mammoth Shaft, ..		Chest squeezed between mine car and post at face of pillar.
	20	Martin Peferna, ...	Austrian, ...	Miner, ...	29	M.	Crows Nest, ...		Arm fractured by fall of slate at face of room.
	22	G. G. Baldwin, ...	American, ..	Company man, ...	50	M.	Humphreys, ...		Leg broken by fall of slate on entry.

CONDITION OF MINES

H. C. FRICK COKE COMPANY

Brinkerton.—Ventilation and drainage, good.

Buckeye.—Ventilation and drainage, good.

Calumet.—Ventilation and drainage, good.

Chambers.—This mine was in operation only a short time during the early part of the year, and no inspection was made.

Hecla No. 1.—Ventilation good and well circulated to face of workings. Drainage satisfactory.

Hecla No. 2.—Ventilation, drainage and other general conditions, good.

Hecla No. 3.—Ventilation, drainage and other general conditions, good.

Mammoth Shaft.—Ventilation good and very well conducted to working faces and over falls. Drainage, good.

Mammoth Slope.—Ventilation and drainage, good.

Marguerite.—Ventilation was good in the working portions of the mine, except in two headings where the air current had not been carried to the working faces. Drainage, fair.

Mutual.—Ventilation good, except in a small portion of one section of the mine where it was weak. Drainage, good, except in a portion of one of the flats.

Painter.—Ventilation and drainage, good.

Standard Nos. 2 and 3.—Ventilation and drainage good.

Standard Slope.—Ventilation good, except in workings of new haulage dip. Drainage, satisfactory.

United.—In No. 2 South the ventilating current was weak. In all other parts of the mine, ventilation good. Drainage, good.

KEYSTONE COAL AND COKE COMPANY

Carbon.—Ventilation and drainage, good.

Crows Nest.—Ventilation was well circulated around the working faces, but the volume of air conducted to Nos. 3, 6 and 7 splits was slightly below the amount required by law. Drainage, satisfactory.

Greensburg No. 1.—Ventilation, good, but drainage in part of the mine needed improvement.

Greensburg No. 2.—Ventilation, good. Drainage, satisfactory.

Greensburg No. 3.—Ventilation and drainage, good.

Hempfield No. 1.—Ventilation was good, except at face of two of the headings, and as a result, black damp conditions were discovered. Drainage, satisfactory.

Hempfield No. 2.—Ventilation, good. Drainage, good, except that the haulage roads were muddy in a few places.

Hempfield No. 3.—Ventilation and drainage, good.

Seaboard Shaft.—Ventilation and drainage, good.

WASHINGTON COAL AND COKE COMPANY

Washington No. 1.—Ventilation was good, except on a fall in one of the headings where explosive gas was discovered. Drainage was good, except in a few places on the new slope traveling way.

Washington No. 2.—Ventilation and drainage, good.

Washington No. 3.—Ventilation and drainage, good.

MOUNT PLEASANT-CONNELLSVILLE COKE COMPANY

Mount Pleasant.—Ventilation and drainage, good.

W. J. RAINEY

Acme.—Ventilation and drainage in good condition.

CLARE COKE COMPANY

Clare No. 2.—Ventilation, good. Drainage, fair.

Clare No. 3.—Ventilation and drainage, fair.

BESSEMER COKE COMPANY

Humphreys.—Ventilation was good, except that it was not conducted to the face of a pillar section. Drainage, good.

MOUNT PLEASANT COKE COMPANY

Boyer No. 2.—Ventilation and drainage, good.

VETERAN COKE COMPANY

Veteran.—In good condition both as to ventilation and drainage.

GREENSBURG COAL COMPANY

Hawksworth.—Ventilation and drainage, good.

WILKEY AND FEATHER COKE COMPANY

Anica.—Ventilation and drainage, good.

MAGEE COKE COMPANY

Magee.—Ventilation and drainage, very good.

NORTHERN-CONNELLSVILLE COKE COMPANY

Marthabel.—Ventilation and drainage, fair.

CONNELLSVILLE-MUTUAL COKE COMPANY

Love.—Ventilation, good; drainage, fair.

CONNELLSVILLE COKE COMPANY

Dexter.—Ventilation was good, except in a small portion of a crop section. Drainage, good.

BRUSH RUN COAL AND COKE COMPANY

Brush Run.—Ventilating current was not strong, but the working faces were in a healthy condition. Drainage, good.

WEST PENN COKE COMPANY

West Penn.—Ventilation weak at face of main heading, due to lack of stoppings and doors. Drainage, fair.

YOUGHIOGHENY COAL COMPANY

Florence.—Ventilation and drainage, good.

PERRY COKE COMPANY

Martin.—In operation only a short time the early part of the year and no inspection was made.

IMPROVEMENTS

H. C. FRICK COKE COMPANY

Brinkerton.—Constructed three permanent stoppings.

Buckeye.—Constructed one permanent fire-proof overcast.

Calumet.—Built five new double tenements and installed two Covington coke drawing machines.

Hecla No. 1.—Constructed three permanent fire-proof overcasts and twenty-two stoppings. Erected ten new double tenements.

Hecla No. 3.—Constructed two permanent fire-proof overcasts and twenty-one permanent fire-proof stoppings. Installed new sprinkling system and erected a fire-proof hospital at shaft bottom.

Mammoth Shaft and Slope.—Constructed four permanent fire-proof overcasts and eighty-eight fire-proof stoppings. Installed one 16-ton air locomotive and two 250 H. P. boilers. Made 27-foot extension to boiler house. Erected a 45 by 70-foot repair shop and made a 27 by 50-foot extension to brick power house. Installed 200 K. W. generator, a 20 K. W. generator and a 10 H. P. electric pump. Three Covington coke drawing machines and one 1,000 and one 200 H. P. feed water heaters were added to equipment. Installed one 5 by 8-foot steel fan with twin engine in brick fan house and erected one 32 by 44-foot frame pump house.

Marguerite.—Constructed four permanent fire-proof overcasts and twenty-five fire-proof stoppings. Electric haulage with two 15-ton General Electric motors installed. One new generator building erected and two 250 K. W. generators installed. Three Covington coke drawing machines added to equipment.

Mutual.—Seventeen permanent fire-proof stoppings constructed.

Standard Nos. 2 and 3, and Slope.—Forty permanent fire-proof stoppings were constructed. 400 feet of 18 inch, 800 feet of 6 inch, 94 feet of 30 inch, and 93 feet of 24 inch sewer pipe were put in manway at shaft bottom. This was done to make traveling way so that the men could reach the shaft bottom without coming in contact with the haulage. A new brick bathhouse, with thirty-four showers and plunge, and fifteen double tenements were erected. A fire-proof underground stable at slope with stone side walls and cement floor, and hay room of same construction were built. Engine room, mine office, tool room and oil room were fireproofed.

United.—Ten brick stoppings for dams in Kilgore dip section were constructed.

KEYSTONE COAL AND COKE COMPANY

Carbon.—Installed an additional 20 ton H. P. Porter compressed air locomotive and erected a new slack bin to replace old one, which had been torn down.

Crows Nest.—Eight overcasts, seventy stoppings and two manway bridges were constructed. Eleven stalls added to inside stable. One 300 K. W. motor generator installed inside. Foundation for 50 H. P. electric hoist built inside; also one brick mine foreman's station erected inside. One 13-ton General Electric locomotive installed. One thousand feet of railroad siding and 2,700 feet of 4-inch water line were laid. A slate bin was attached to tipple.

Greensburg No. 3.—New blacksmith and carpenter shop and engine house were erected and new haulage engine installed. A new main slope opening was made to afford a more direct haulage for coal. Eleven brick stoppings were constructed.

Hempfield No. 1.—One Jeanesville Duplex 1,000 gallon electric pump installed. Two overcasts and forty stoppings were built.

Seaboard Shaft.—Erected a new head frame to replace old one, which was torn down. Installed Westinghouse Roney mechanical stokers, together with Link-Belt handling machinery, also new coal crusher and crusher building. Large sump under construction in Greensburg mine No. 2 workings.

WASHINGTON COAL AND COKE COMPANY

Washington No. 1.—One overcast, fifty stoppings and 200-foot brick arch built.

Washington No. 2.—1,600 feet of water course cleaned and seventy-four brick stoppings and one overcast built. One hundred and sixty-five feet of brick arch on the old side track between 10 and 11 south entries built. One new 8-ton electric motor put into service.

Washington No. 3.—One brick pump room built inside mine.

W. J. RAINEY

Acme.—One new brick lamp house and one brick compressor house were built. One concrete stopping constructed.

NORTHERN-CONNELLSVILLE COKE COMPANY

Marthabel.—Two stoppings built.

BRUSH RUN COAL AND COKE COMPANY

Brush Run.—One new traveling way opened.

WEST PENN COKE COMPANY

West Penn.—One new 8-ton Goodman mine motor added to equipment. New mine opened on Hissem farm. One new electric pump installed. Twenty-four ovens leased, 20 of which are in blast, from the Mount Pleasant Coke Company. New trestle built connecting Marion and Boyer plants. New blacksmith shop, 40 by 30 feet, erected.

YOUGHIOGHENY COAL COMPANY

Florence.—Five new double houses have been erected and various improvements made to houses previously constructed. A new store building erected, with all modern improvements. The ventilating fan moved from the inside to the outside of the mine and placed in a steel and concrete building. One blacksmith and machine shop has been erected, also a brick power house. Housing built around two electrically propelled generators and one electric hoist. One hundred and seventeen mine cars have been added to the equipment. Have installed three short wall Sullivan electric mining machines, and one 10-ton, 7 H. P. Westinghouse electric locomotive. Have erected tipple for domestic coal, fitted with Howe scales, also a new railroad tipple with screen and screening bin. Erected a sand house and sand dryer. Have under construction a 60-foot retaining wall and bridge across the run to open 79 acres of coal.

PROSECUTIONS FOR VIOLATION OF THE MINING LAWS

February 7.—R. C. Cramer, fire boss, Hecla No. 1 mine, H. C. Frick Coke Company. Charge: Failure to properly examine a rib section of the mine and neglecting to leave proper evidence of his presence. Verdict rendered—Not guilty, and county to pay the costs.

June 12.—John Kleasky, miner, Mount Pleasant mine, Mount Pleasant Connellsville Coke Company. Charge: Taking smokers' articles into the mine. He is a fugitive from justice.

June 12.—Frank Holoko, laborer, United mine, H. C. Frick Coke Company. Charge: Taking matches into mine. He is a fugitive from justice.

MINE FOREMEN'S, ASSISTANT MINE FOREMEN'S AND FIRE BOSSES' EXAMINATIONS

The annual examination of applicants for certificates of qualification as mine foremen, assistant mine foremen and fire bosses was held in the Reid building, Scottdale, April 6, 7 and 8. The Board of Examiners was composed of D. R. Blower, Inspector; W. E. Henderson, Superintendent, and Robert Blackburn, Miner.

There were 24 applicants for certificates of qualification as mine foremen and assistant mine foremen and 56 applicants for certificates of qualification as fire bosses.

The following persons passed a satisfactory examination and were granted certificates:

MINE FOREMEN

First Grade

Samuel Queer, Joseph T. Beranek, Mount Pleasant; Joseph W. Petrosky, Youngwood; John T. Hayden, Greensburg.

ASSISTANT MINE FOREMEN

Robert J. Conlin, Mammoth; John S. Petrosky, Calumet; Robert J. Turney, Albert Eustis, Greensburg; George W. Smith, Elmer E. Hawse, Trauger; George T. Blain, Harry H. Reed, Mount Pleasant; Henry Hennessey, Stauffer; Robert C. Cramer, South West.

FIRE BOSSES

Clarence A. Koontz, Thomas Franey, John Stepanic, James Dezort, James W. McKenna, Mount Pleasant; James F. Myers, William Kirtley, John E. Hillwig, James H. Strong, Greensburg; Thomas Hails, Walter Jones, United; Frank Campbell, Joseph E. Goney, South West; James Fullerton, John W. Oneal, Trauger; Frank G. Lindsay, Scottdale; Henry Hennessey ,Stauffer; John S. Petrosky, Calumet.

* * *

TWELFTH DISTRICT

JEFFERSON, INDIANA, CLEARFIELD AND ARMSTRONG COUNTIES

Punxsutawney, Pa., February 20, 1914.

Hon. James E. Roderick, Chief of Department of Mines:

Sir: I have the honor to transmit herewith my annual report of the Twelfth Bituminous District for the year ending December 31, 1913, in compliance with the provisions of the Bituminous Mine Law.

Respectfully submitted,

THOMAS A. FURNISS,
Inspector.

SUMMARY OF STATISTICS

Number of mines,	74
Number of mines in operation,	58
Number of tons of coal shipped to market,	4,812,836
Number of tons used at mines for steam and heat,	288,810
Number of tons sold to local trade and used by employes,.	33,580
Number of tons used in the manufacture of coke,	717,968
Number of tons of coal produced,	5,853,194
Number of tons of coke produced,	509,874
Number of coke ovens,	2,121
Number of coke ovens in operation,	2,121
Number of tons of coal produced by pick mining,	1,730,298
Number of tons produced by compressed air machines,	3,454,590
Number of tons produced by electrical machines,	668,306
Number of persons employed inside of mines,	5,646
Number of persons employed outside, including coke workers,	1,165
Number of persons employed at manufacture of coke,	322
Number of fatal accidents inside of mines,	16
Number of fatal accidents outside,	..
Number of non-fatal accidents inside of mines,	31
Number of non-fatal accidents outside,	3
Number of tons of coal produced per fatal accident inside,	365,825
Number of tons produced per fatal accident outside,	....
Number of tons produced per fatal accident inside and outside,	365,825
Number of persons employed per fatal accident inside,	353
Number of persons employed per fatal accident outside,	....
Number of persons employed per fatal accident inside and outside,	426
Number of persons employed per non-fatal accident inside,	182
Number of persons employed per non-fatal accident outside,	388
Number of persons employed per non-fatal accident inside and outside,	200
Number of wives made widows,	9
Number of children made orphans,	15
Number of steam locomotives used inside of mines,	..
Number of steam locomotives used outside,	10
Number of compressed air locomotives used inside,	..
Number of compressed air locomotives used outside,	..
Number of electric motors used inside,	110
Number of electric motors used outside,	....
Number of gasoline locomotives used inside,	4
Number of fans in use,	40
Number of furnaces in use,	8
Number of gaseous mines in operation,	7
Number of non-gaseous mines in operation,	51
Number of new mines opened,	1
Number of old mines abandoned,	..

TABLE A

PRODUCTION OF COAL

Names of Operators	Tons
Rochester and Pittsburgh Coal and Iron Company,	2,195,400
Clearfield Bituminous Coal Corporation,	774,500
Jefferson and Clearfield Coal and Iron Company,	397,097
Pennsylvania Coal and Coke Corporation,	382,418
Cascade Coal and Coke Company,	211,297
Ellsworth-Dunham Coal Company,	186,823
Punxsutawney Coal Mining Company,	180,174
John McLeavy and Company,	176,857
Dayton Coal Company,	143,307
Dixon Coal Company,	142,238
Hillsdale Coal and Coke Company,	117,207
Bowersville Coal Company,	116,454
Urey Ridge Coal Company,	114,256
Summit Coal Mining Company,	101,735
Russell Coal Company,	95,209
Glenwood Coal Company,	81,370
Bear Run Coal and Coke Company,	61,272
Chestnut Ridge Coal Company,	57,875
Sutter Coal Company,	42,995
Indiana Coal Company,	39,465
Dixonville Coal Company,	38,200
Superior Coal Mining Company,	34,645
Cortez Coal Company,	31,255
Madeira Hill Coal Mining Company,	29,776
Electric Coal Company,	25,111
Lindsey Coal Mining Company,	23,900
Hamilton Coal Mining Company,	21,248
Clark Brothers Coal Mining Company,	20,895
Hudson Coal Mining Company,	10,215
Total,	5,853,194

Production by Counties

Jefferson,	2,628,948
Indiana,	2,372,906
Clearfield,	606,298
Armstrong,	245,042
Total,	5,853,194

TABLE B.—Fatal and non-fatal accidents inside and outside of mines; number of tons of coal produced per accident; number of persons employed; number employed per accident

Names of Operators	Fatal Accidents			Non-Fatal Accidents			Tons of coal produced per fatal accident inside	Tons of coal produced per non-fatal accident inside	Number of employes inside	Number of employes outside	Total number of employes	Number of employes inside per fatal accident	Number of employes outside per fatal accident	Number of employes inside per non-fatal accident	Number of employes outside per non-fatal accident
	Inside	Outside	Total	Inside	Outside	Total									
Rochester and Pitsburgh Coal and Iron Co.,	9	......	9	14	......	14	243,933	156,814	1,923	587	2,510	214	....	137	....
Clearfield Bituminous Coal Corporation, ...	......	......	......	1	1	2	....	774,500	744	97	841	....	....	744	97
Jefferson and Clearfield Coal and Iron Co.,	1	......	1	1	......	1	397,097	397,097	328	133	461	328	....	328	....
Pennsylvania Coal and Coke Corporation, ..	......	......	......	3	1	4	....	127,472	437	43	480	....	....	146	43
Cascade Coal and Coke Co , ...	......	......	......	1	......	1	....	211,297	205	82	287	....	....	205	....
Ellsworth-Dunham Coal Co., ...	......	......	......	4	......	4	....	46,706	149	22	171	....	....	37	....
Punxsutawney Coal Mining Co., ...	......	......	......	1	......	1	....	180,174	162	17	179	....	....	162	....
Dayton Coal Co., ...	......	......	......	1	......	1	....	143,307	180	17	197	....	....	180	....
Dixon Coal Co., ...	......	......	......	2	......	2	....	71,119	125	17	142	....	....	62	....
Summit Coal Mining Co., ...	1	......	1	......	......	......	101,735	....	72	5	77	72	....	....	....
Bear Run Coal and Coke Co., ...	1	......	1	......	......	......	61,272	....	95	8	103	95	....	....	....
Chestnut Ridge Coal Co., ...	......	......	......	1	1	2	....	57,875	85	5	90	....	....	85	5
Dixonville Coal Co., ...	1	......	1	......	......	......	38,200	....	51	3	54	51	....	....	....
Superior Coal Mining Co., ...	1	......	1	......	......	......	34,645	....	91	9	100	91	....	....	....
Cortez Coal Co., ...	2	......	2	......	......	......	15,627	....	39	5	44	19	....	....	....
Electric Coal Co., ...	......	......	......	1	......	1	....	25,111	62	7	69	....	....	62	....
Hamilton Coal Mining Co., ...	......	......	......	1	......	1	....	21,248	34	3	37	....	....	34	....
Miscellaneous Companies, ...	......	......	......	......	......	......	....	....	864	105	969	....	....	....	....
Totals and averages for district, ...	**16**	......	**16**	**31**	**3**	**34**	365,825	188,813	5,646	1,165	6,811	353	....	182	388

TABLE C.—Classification of Fatal Accidents Inside and Outside of Mines

	Months													
	January	February	March	April	May	June	July	August	September	October	November	December	Totals	Percentages
Causes of Accidents Inside														
Falls of coal, ...	....	....	....	....	1	....	....	1	....	....	....	....	2	12.50
Falls of slate, ...	1	....	3	....	....	....	1	2	....	....	1	....	8	50.00
Falls of roof, ...	1	....	....	....	....	....	....	....	1	....	1	....	3	18.75
Mine cars, ...	....	....	....	....	1	....	....	1	....	....	....	....	2	12.50
Electricity, ...	....	....	....	....	1	....	....	....	....	....	....	....	1	6.25
Totals, ...	2	....	3	....	3	....	1	4	1	....	2	....	16	100.00
Causes of Accidents Outside (No Accidents)														

TABLE D.—Classification of Non-Fatal Accidents Inside and Outside of Mines

	Months													
	January	February	March	April	May	June	July	August	September	October	November	December	Totals	Percentages
Causes of Accidents Inside														
Falls of coal, ...	1	1	....	....	....	....	....	1	....	2	1	1	7	22.58
Falls of slate, ...	1	1	1	1	2	1	1	....	....	....	....	1	9	29.03
Falls of roof, ...	1	....	....	....	....	2	....	....	1	....	....	....	4	12.90
Mine cars, ...	1	....	....	....	1	2	....	....	1	2	1	1	9	29.03
Machinery, ...	....	....	....	....	....	....	....	....	1	....	....	....	1	3.23
Struck by bar, ...	....	....	....	....	....	....	....	....	....	....	....	1	1	3.23
Totals, ...	4	2	1	1	3	5	1	1	3	4	2	4	31	100.00
Causes of Accidents Outside														
Cars, ...	....	....	....	....	....	1	....	....	1	....	1	....	3	100.00
Totals, ...	....	....	....	....	....	1	....	....	1	....	1	....	3	100.00
Grand totals inside and outside, ...	4	2	1	1	3	6	1	1	4	4	3	4	34	......

TABLE E.—Occupations of Persons Killed or Fatally Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
Inside													
Miners,	1	....	2	....	1	....	1	3	1	....	1	....	10
Machine loaders,	....	....	1	....	....	....	....	....	....	....	1	....	2
Drivers and runners,	....	....	....	....	1	....	....	....	....	....	....	....	1
Doorboys and helpers,	....	....	....	....	....	....	....	1	....	....	....	....	1
Company men,	1	....	....	....	....	....	....	....	....	....	....	....	1
Motormen,	....	....	....	....	1	....	....	....	....	....	....	....	1
Totals,	2	....	3	....	3	....	1	4	1	....	2	....	16
Outside (No Accidents)													

TABLE F.—Occupations of Persons Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
Inside													
Mine foremen,	....	....	....	....	....	1	....	....	....	....	....	....	1
Miners,	1	2	1	....	2	3	1	1	2	3	2	3	21
Machine runners,	....	....	....	....	1	....	....	....	1	....	....	....	2
Machine loaders,	1	....	....	1	....	....	....	....	....	....	....	....	2
Machine scrapers,	....	....	....	....	....	....	....	....	....	....	....	1	1
Drivers and runners,	1	....	....	....	....	....	....	....	....	1	....	....	2
Company men,	1	....	....	....	....	1	....	....	....	....	....	....	2
Totals,	4	2	1	1	3	5	1	1	3	4	2	4	31
Outside													
Blacksmiths and carpenters,	....	....	....	....	....	1	....	....	1	....	....	....	2
Drivers,	....	....	....	....	....	....	....	....	....	....	1	....	1
Totals,	....	....	....	....	....	1	....	....	1	....	1	....	3
Grand totals inside and outside,	4	2	1	1	3	6	1	1	4	4	3	4	34

TABLE G.—Nationality of Persons Killed or Fatally Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
American,	....	....	....	....	....	....	....	1	....	....	....	....	1
Scotch,	1	....	....	....	....	....	....	....	....	....	....	....	1
Polish,	....	....	....	....	1	....	....	1	....	....	1	....	3
Italian,	....	....	1	....	....	....	1	....	1	....	....	....	3
Slavonian,	1	....	....	....	2	....	....	2	....	....	....	....	5
Austrian,	....	....	....	....	....	....	....	....	....	....	1	....	1
Swedish,	....	....	2	....	....	....	....	....	....	....	....	....	2
Totals,	2	....	3	....	3	....	1	4	1	....	2	....	16

TABLE H.—Nationality of Persons Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
American,	....	1	....	1	....	4	....	....	....	1	1	....	8
Scotch,	....	....	1	....	....	....	....	....	....	....	....	....	1
Polish,	1	1	....	....	....	....	....	1	1	1	2	....	7
Hungarian,	....	....	....	....	....	....	....	....	....	1	....	....	1
Italian,	1	....	....	....	2	1	1	....	1	1	....	1	8
Slavonian,	2	....	....	....	1	1	....	....	1	....	....	2	7
Horwat,	....	....	....	....	....	....	....	....	1	....	....	1	2
Totals,	4	2	1	1	3	6	1	1	4	4	3	4	34

TABLE I.—Operators and mines, kind of openings, type and size of fans, size of furnaces, volume of air produced by fan or furnace per minute, number of splits of air currents and number of persons employed inside

Names of Operators and Mines	Kind of opening	Gaseous or non-gaseous	Method of ventilation	Diameter of fan in feet and inches	Width of blades in feet and inches	Depth of blades in feet and inches	Number of revolutions per minute	Water gauge developed—in inches	Name of fan	Power used	Area of furnace bars in square feet	Number of splits of air currents	Number of cubic feet of air per minute entering the mine at inlet	Total number of cubic feet of air per minute circulating in all the splits	Number of cubic feet of air per minute passing out at outlet	Number of persons employed inside
Rochester and Pittsburgh Coal and Iron Co.																
Eleanora No. 2, ...	Slope,.....	Gaseous,..	Fan, .	6.0	5.0	.5	360	3.0	Robinson, .	Steam,....		6	123,800	91,642	125,400	375
Eleanora No. 3, ...	Drift, ...	Non-gas.,.		25.0	8.0	8.0	70	2.5	Guibal, ...			2	22,480	16,500	23,000	40
Eleanora Shaft, ...	Shaft, ...	Gaseous,..		16.0	8.0	8.0	110	1.5	Capell, ...			8	127,360	87,298	131,000	168
Adrian No. 1, ...	Slope,.....	Gaseous,..		16.0	8.0	8.0	138	2.6	Capell, ...			6	113,580	68,702	115,000	388
Florence No. 1, ...	Slope,.....	Non-gas.,.		16.0	8.0	8.0	180	3.0	Capell, ...			5	98,000	58,056	99,200	212
Florence No. 2, ...	Drift, ...	Non-gas.,.		7.5	1.2	2.4	212	0.3	Stine, ...			2	20,450	17,370	22,000	115
Walston No. 3, ...	Slope,.....	Gaseous,..		25.0	6.0	6.0	65	1.6	Guibal, ...			2	26,800	15,368	28,000	106
Helvetia-Stanley, ...	Slope,.....	Gaseous,..		20.0	4.0	4.5	90	1.0	Guibal, ...			9	131,932	87,854	133,240	519
	Shaft, ...	Gaseous,..		20.0	4.0	4.5	90	1.6								
Clearfield Bituminous Coal Corporation																
Canoe Ridge No. 1, ...	Drift, ..	Non-gas.,.	Fan, ...	10.0	2.6	4.2	200	1.2	Stine, ...	Steam,......	..	4	47,224	41,144	48,500	247
Canoe Ridge No. 3, ...				14.0	4.0	6.0	165	3.5	Robinson, .	Steam,......	..	4	42,120	35,474	44,000	177
Canoe Ridge No. 4.				7.2	2.0	2.4	315	1.1	Stine, ...	Electricity,	..	2	38,976	28,624	40,240	167
Barr, ...	Slope,.....	Non-gas.,.	Fan, ...	8.0	2.0	3.4	350	1.0	Stine, ...	Steam,......	..	4	39,870	32,732	41,720	158
Jefferson and Clearfield Coal and Iron Co.																
Soldier Nos. 1 and 2, ...	Slope,.....	Non-gas.,.	Fan, .	20.0	6.0	6.0	52	1.2	Guibal, ...	Steam,......	..	5	84,752	40,166	86,000	132
Soldier No. 3, ...	Drift, ...	Non-gas.,.		6.0	1.5	2.5	85	0.6	Clark, ...	Compressed air.	..	4	14,880	9,000	16,000	59
Soldier No. 5, ...	Shaft, ...	Gaseous,..		16.0	8.0	8.0	90	2.0	Capell, ...	Steam,......	..	4	65,800	33,405	67,200	137

Pennsylvania Coal and Coke Corporation															
Arcadia No. 40,	Drift, ..	Non-gas.	Fan, ...	12.0	5.0	3.0	127	1.8	Stine, ...	Steam,......	..	3	62,325	30,300	67,230	169
Arcadia No. 41,			Fan, ...	12.0	3.4	3.4	112	0.7	Pollock, ...	Steam,......	..	2	24,680	21,560	29,200	123
Arcadia No. 43,			Furnace,..	......	......	......	......	......	....	....	56	3	25,920	22,424	28,740	101
Arcadia No. 44,			Furnace,..	......	......	......	......	......	....	....	42	1	18.900	10,480	21,000	44
Cascade Coal and Coke Co.																
Sykesville Shaft,	Shaft, ...	Gaseous, ..	Fan, ...	20.0	8.0	9.0	84	2.7	Robinson, .	Steam,......	..	5	88,240	57,872	92,460	205
Ellsworth-Dunham Coal Co.																
Victor No. 11,	Drift, ...	Non-gas., .	Fan, ...	10.0	2.6	4.6	200	0.6	Stine, ...	Steam,......	..	1	18,000	8,500	19,000	24
Victor No. 14,	Slope,.....	Non-gas., .	Fan, ...	20.0	8.0	8.0	88	2.5	Pollock, ..	Steam,......	..	3	47,600	29,036	49,000	125
Punxsutawney Coal Mining Co.																
Frances,	Drift, ...	Non-gas., .	Fan, ...	12.0	4.0	3.0	100	0.7	Brazil, ...	Steam,......	..	3	44,000	22,170	46,000	162
John McLeavy and Co.																
Sholler,	Slope,.....	Non-gas., .	Fan, ...	9.0	7.0	4.3	120	0.8	Capell, ...	Steam,......	..	3	43,316	22,260	47,340	91
Conrad,	Drift, ...	Non-gas., .	Furnace,..	......	......	......	......	......	....	....	25	2	12,240	6,240	14,240	43
Dayton Coal Co.																
Dayton No. 1,	Drift, ...	Non-gas., .	Fan, ...	12.0	6.0	2.3	60	0.5	Clark, ...	Steam,......	..	1	24,696	10,600	25,640	50
Dayton No. 2,				7.0	1.5	3.0	300	1.0	Stine, ...	Electricity,	..	1	23,640	19,680	24,000	130
Dixon Coal Co.																
Dixon No. 1,	Drift, ...	Non-gas., .	Fan, ...	12.0	8.0	4.0	130	2.0	Capell, ...	Steam,......	..	3	66,600	45,340	67,000	125
Hillsdale Coal and Coke Co.																
Hillsdale No. 3,	Drift, ...	Non-gas., .	Furnace,..	......	......	......	......	......	....	....	36	1	16,064	10,240	17,000	44
Hillsdale No. 4,											..	1	18,240	11,720	19,500	83
Bowersville Coal Co.																
Bowersville,	Drift, ...	Non-gas., .	Fan, ...	18.0	6.0	4.0	65	0.7	Guibal, ...	Steam,......	..	1	21,100	18,240	22,000	99
Urey Ridge Coal Co.																
Urey No. 1,	Drift, ...	Non-gas., .	Furnace,..	......	......	......	......	......	....	....	36	1	14,000	7,800	14,900	36
Urey No. 5,											36	2	20,000	15,400	21,240	76
Summit Coal Mining Co.																
Summit No. 1,	Drift, ..	Non-gas., .	Fan, ...	6.0	1.2	2.6	300	0.6	Clark, ...	Steam,....	..	1	18,750	13,212	19,000	72
Summit No. 2,				7.0	1.5	3.0	200	0.3	Stine, ...							
Russell Coal Co.																
Victor No. 27,	Slope,.....	Non-gas., .	Fan, ...	10.0	2.5	4.0	200	0.3	Stine, ...	Steam,......	..	2	25,480	19,848	27,480	113
Glenwood Coal Co.																
Glenwood No. 6½,	Drift, ...	Non-gas., .	Furnace,..	......	......	......	......	......	....	....	36	1	14,800	9,000	15,000	60
Glenwood No. 12,											36	1	10,000	4,500	10,500	18
Bear Run Coal and Coke Co.																
Bear Run No. 2,	Drift, ...	Non-gas., .	Fan, ...	18.0	6.0	5.0	80	1.0	Brazil, ...	Steam,......	..	2	48,600	18,720	49,000	95

TABLE I.—Continued

Names of Operators and Mines	Kind of opening	Gaseous or non-gaseous	Method of ventilation	Diameter of fan in feet and inches	Width of blades in feet and inches	Depth of blades in feet and inches	Number of revolutions per minute	Water gauge developed—in inches	Name of fan	Power used	Area of furnace bars in square feet	Number of splits of air currents	Number of cubic feet of air per minute entering the mine at inlet	Total number of cubic feet of air per minute circulating in all the splits	Number of cubic feet of air per minute passing out at outlet	Number of persons employed inside
Chestnut Ridge Coal Co.																
Indiana No. 6, ...	Drift, ...	Non-gas., .	Furnace, ..	......	......	......	......	......	....	....	30	3	22,640	14,400	23,000	85
Sutter Coal Co.																
Valler, ...	Drift, ...	Non-gas., .	Fan, ...	5.6	1.0	2.0	275	0.8	Clark, ...	Steam, ...	..	1	14,800	5,704	16,000	35
Indiana Coal Co.																
Indiana No. 1, ...	Drift, ..	Non-gas.	Natural, ..	......	......	......	......	......	....	....	..	1	4,400	4,400	4,800	21
Indiana No. 5, ...			Fan, ...	16.0	5.6	5.0	75	0.5	Pollock, ...	Steam, ...	..	1	18,720	5,220	19,000	26
Dixonville Coal Co.																
Randolph No. 2, ...	Drift, ...	Non-gas., .	Fan, ...	7.0	1.5	3.0	180	0.5	Stine, ...	Gasoline, ...	..	1	24,800	10,625	25,000	51
Superior Coal Mining Co.																
Superior No. 1, ...	Drift, ...	Non-gas., .	Fan, ...	4.0	1.3	1.5	210	0.5	Robinson, .	Gasoline, ...	..	1	20,730	14,600	21,000	91
Cortes Coal Co.																
Cortes No. 1, ...	Drift, ..	Non-gas., .	Natural, ..	.....	......	......	......	......	....	....	..	1	5,200	4,500	5,600	20
Cortes No. 2, ...											..	1	5,500	4,650	6,000	19
Madeira-Hill Coal Mining Co.																
Clover Run Nos. 2, 4 and 6,	Drift, ...	Non-gas., .	Fan, ...	10.0	2.6	4.6	176	2.0	Stine, ...	Steam, ...	..	3	22,000	12,560	22,600	39
Electric Coal Co.																
Electric No. 7, ...	Drift, ...	Non-gas., .	Fan, ...	7.0	2.0	2.5	160	0.5	Stine, ...	Steam, ...	..	1	18,500	10,640	19,200	62

Lindsey Coal Mining Co.																
Lindsey No. 5,	Slope,	Non-gas.,	Fan,	4.0	2.0	1.0	300	0.5	Stine,	Electricity,	..	1	12,720	6,600	13,000	23
Lindsey No. 8,	Drift,	Non-gas.,	Fan,	10.0	3.0	4.0	60	0.3	Stine,	Steam,	..	1	18,000	8,640	18,250	14
Hamilton Coal Mining Co.																
Hamilton,	Drift,	Non-gas.,	Fan,	7.0	3.0	3.0	120	0.4	Stine,	Steam,	..	2	13,680	11,280	14,220	34
Clark Brothers Coal Mining Co.																
Falcon Nos. 5½ and 7,	Drift,	Non-gas.,	Furnace,	......	......	......	......	......	....	....	20	2	7,220	4,640	7,400	25
Hudson Coal Mining Co.																
Hudson,	Drift,	Non-gas.,	Fan,*	......	......	......	......	......	....	....	..	1	11,280	9,640	12,000	18

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*Ventilated by fan at Bowersville mine.

TABLE J.—Mines using coal cutting machines, power used, geological and local names of seams, thickest and thinnest seams where machines are used, and the approximate number of tons produced by machines

Names of Operators	Names of Mines	Kind of opening	Gaseous or non-gaseous	Number of mining machines used	Power used by machines	Geological and local names of seams	Average thickness in inches	Height of Seam in Inches		Approximate number of tons produced by machines
								Thickest	Thinnest	
Rochester and Pittsburgh Coal and Iron Co.,	Eleanora No. 2, Eleanora No. 3, Eleanora Shaft, Adrian No. 1, Florence No. 1, Florence No. 2, Walston No. 3, Helvetia-Stanley,	Slope, Drift, Shaft, Slope, Slope, Drift, Slope, Slope and Shaft,	Gaseous, Non-gas., Gaseous, Gaseous, Non-gas., Non-gas., Gaseous, Gaseous,	40 4 24 24 30 7 4 52	Compressed air,	Lower Freeport,	60 48 78 72 27 48 66 60	96 72 120 84 84 72 72 72	36 36 36 48 48 36 36 48	1,908,204
Totals,				185						1,908,204
Clearfield Bituminous Coal Corporation,	Canoe Ridge Nos. 1, 3, 4, Barr,	Drift, Slope,	Non-gas., Non-gas.,	63 12	Compressed air, Electricity,	Upper Freeport, Lower Freeport,	48 40	50 48	46 32	617,822 86,545
Totals,				75						704,367
Jefferson and Clearfield Coal and Iron Co.,	Soldier Nos. 1 and 2, Soldier No. 3, Soldier No. 5,	Slope, Drift, Shaft,	Non-gas., Non-gas., Gaseous,	8 4 30	Compressed air,	Lower Freeport,	72	84	60	365,363
Totals,				42						365,363
Pennsylvania Coal and Coke Corporation,	Arcadia No. 41,	Drift,	Non-gas.,	3	Electricity,	Upper Freeport,	46	50	44	78,751

Cascade Coal and Coke Co., ...	Sykesville Shaft, ...	Shaft, ...	Gaseous, ..	24	Compressed air,	Lower Freeport,	61	80	42	211,297
Ellsworth-Dunham Coal Co., ...	Victor Nos. 11 and 14, ...	Drift, Slope,.	Non-gas., .	4	Electricity,......	Upper Freeport,	42	48	35	139,950
Punxsutawney Coal Mining Co., ..	Frances, ...	Drift, ...	Non-gas., .	20	Compressed air,	Upper Freeport,	41	44	38	168,174
John McLeavy and Co., ...	Sholler, ...	Slope,.....	Non-gas., .	3	Compressed air,	Lower Freeport,	60	72	54	6,610
Dayton Coal Co., ...	Dayton No. 1, ... Dayton No. 2, ...	Drift, ... Drift, ...	Non-gas., . Non-gas., .	3 4	Compressed air,. Electricity,......	Upper Freeport,	42	48	30	15,000 80,000
Totals, ...	....	....	....	7	....	....	......	......	......	95,000
Dixon Coal Co., ...	Dixon No. 1, ...	Drift, ...	Non-gas., .	5	Electricity,......	Lower Freeport,	32	48	28	115,256
Hillsdale Coal and Coke Co., ...	Hillsdale No. 3, ... Hillsdale No. 4, ...	Drift, ... Drift, ...	Non-gas., . Non-gas., .	2 1	Electricity,......	Upper Freeport,	50	50	50	13,230 4,328
Totals, ...	....	....	....	3	....	....	......	......	......	17,558
Bowersville Coal Co., ...	Bowersville, ...	Drift, ...	Non-gas., .	7	Compressed air,	Upper Freeport,	48	52	44	116,454
Urey Ridge Coal Co., ...	Urey No. 5, ...	Drift, ...	Non-gas., .	4	Electricity,......	Upper Freeport,	57	58	56	34,264
Summit Coal Mining Co., ...	Summit No. 2, ...	Drift, ...	Non-gas., .	4	Compressed air Electricity,....	Upper Freeport,	42	48	30	60,000
Glenwood Coal Co., ...	Glenwood No. 6½, ...	Drift, ...	Non-gas., .	3	Electricity,......	Upper Freeport,	45	48	42	32,182
Bear Run Coal and Coke Co., ...	Bear Run No. 2, ...	Drift, ...	Non-gas., .	3	Electricity,......	Upper Freeport,	40	48	36	45,000
Sutter Coal Co., ...	Valier, ...	Drift, ...	Non-gas., .	2	Compressed air,	Upper Freeport,	48	54	36	18,000
Indiana Coal Co., ...	Indiana No. 5, ...	Drift, ...	Non-gas., .	2	Electricity,......	Upper Freeport,	48	48	48	8,982
Lindsey Coal Mining Co., ...	Lindsey No. 8, ...	Drift, ...	Non-gas., .	1	Compressed air,	Lower Freeport,	48	52	36	2,484
Grand totals, ...	....	....	....	396	....	....	......	......	......	4,122,896

TABLE 1.—Operators, Location of Mines, Railroads, etc.

Names of Operators and Mines	County	Name of General Superintendent	Post Office	Name of Superintendent	Post Office	Railroad to Mine
Rochester and Pittsburgh Coal and Iron Co.						
Eleanora Nos. 2, 3 and Eleanora Shaft,	Jefferson,	R. B. Dick,	DeLancey,	John L. White,	Eleanora,	B. R. and P.
Adrian No. 1,				R. B. Dick,	DeLancey,	
Florence Nos. 1 and 2,				F. J. Black,	Anita,	
Walston No. 3,				William Scott,	Walston,	
Elk Run Shaft,†				R. B. Dick,	DeLancey,	
Helvetia-Stanley,	Clearfield,	I. J. Harvey,	Helvetia,	I. J. Harvey,	Helvetia,	
Clearfield Bituminous Coal Corporation						
Canoe Ridge Nos. 1, 3, 4,	Indiana,	H. J. Hinterleitner,	Clearfield,	J. J. Conner,	Rossiter,	N. Y. C. and H. R.
Barr,				James Laing,	Dixonville,	
Jefferson and Clearfield Coal and Iron Co.						
Soldier Nos. 1, 2, 3, 5,	Jefferson,	I. J. Harvey,	Helvetia,	A. R. Richie,	Reynoldsville,	B. R. and P.
Pennsylvania Coal and Coke Corporation						
Arcadia Nos. 40, 41, 42,† 43 and 44,	Indiana,	T. H. Watkins,	Arcadia,	A. O. Summerville,	Arcadia,	N. Y. C. and H. R.
Cascade Coal and Coke Co.						
Sykesville Shaft,	Jefferson,	C. C. Gadd,	Sykesville,	John W. Foster,	Sykesville,	B. and S.
Ellsworth-Dunham Coal Co.						
Victor Nos. 11 and 14,	Indiana,	R. H. George,	Winburne,	R. H. George,	Winburne,	N. Y. C. and H. R.
Punxsutawney Coal Mining Co.						
Frances,	Indiana,	W. S. Blaisdell,	Punxsutawney,	Charles J. Weber,	Rossiter,	B. R. and P.
John McLeavy and Co.						
Sholler and Conrad,	Jefferson,	John McLeavy,	Punxsutawney,	John McLeavy,	Punxsutawney,	Pennsylvania
Dayton Coal Co.						
Dayton Nos. 1 and 2,*	Armstrong,	W. N. Trusell,	Punxsutawney,	S. C. McHenry,	Datyon,	B. R. and P.

†Idle.
*New mine.

Dixon Coal Co. Dixon No. 1,	Indiana,	C. E. Sharpless,	Cresson,	A. L. Christian,	Idamar,	N. Y. C. and H. R.
Hillsdale Coal and Coke Co. Hillsdale Nos. 3 and 4,	Indiana,	J. H. Miller,	Glen Campbell,	Levi Conner,	Glen Campbell,	Penna. and N. Y. C.
Bowersville Coal Co. Bowersville,	Jefferson,	W. N. Trusell,	Punxsutawney,	W. N. Trusell,	Punxsutawney,	Pennsylvania
Urey Nos. 1, 3,† 5 and 6,† Urey Ridge Coal Co.	Indiana,	A. M. Riddell,	Altoona,	James H. Bowers,	Glen Campbell,	Pennsylvania
Summit Coal Mining Co. Summit Nos. 1 and 2,	Armstrong,	W. N. Trusell,	Punxsutawney,	S. C. McHenry,	Dayton,	B. R. and P.
Russell Coal Co. Victor No. 27,	Indiana,	W. D. Dunsmore,	Clymer,	W. D. Dunsmore,	Clymer,	Penna. and N. Y. C.
Glenwood Coal Co. Glenwood Nos. 6½, 9½,† 12 and Winkey,†	Indiana,	A. M. Riddell,	Altoona,	James H. Bowers,	Glen Campbell,	Pennsylvania
Bear Run Coal and Coke Co. Bear Run Nos. 1,† and 2,	Indiana,	W. A. Bowers,	Punxsutawney,	W. A. Bowers,	Punxsutawney,	Pennsylvania
Chestnut Ridge Coal Co. Indiana No. 6,	Indiana,	George Scott,	Philipsburg,	George Scott,	Philipsburg,	N. Y. C. and H. R.
Sutter Coal Co. Valier,	Jefferson,	A. P. Sutter,	Valier,	A. P. Sutter,	Valier,	B. R. and P.
Indiana Coal Co. Indiana Nos. 1, 1½,† 3,† 4,† 5, 7,† and 8,†	Indiana,	George Scott,	Philipsburg,	George Scott,	Philipsburg,	Penna. and N. Y. C.
Dixonville Coal Co. Randolph No. 2,	Indiana,	John Waddell,	Dixonville,	John Waddell,	Dixonville,	Pennsylvania
Superior Coal Mining Co. Superior No. 1,	Indiana,	J. H. Miller,	Glen Campbell,	J. H. Miller,	Glen Campbell,	Pennsylvania
Cortez Coal Co. Cortez Nos. 1 and 2,	Jefferson,	Rodger Hampson,	Punxsutawney,	John R. Hampson,	Punxsutawney,	Pennsylvania
Madeira-Hill Coal Mining Co. Clover Run Nos. 1,† 2, 4 and 6,	Clearfield,	W. R. Wilburn,	Philipsburg,	W. R. Wilburn,	Philipsburg,	Pennsylvania
Electric Coal Co. Electric No. 7,	Indiana,	J. H. Miller,	Glen Campbell,	J. H. Miller,	Glen Campbell,	N. Y. C. and H. R.

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†Idle.

TABLE 1.—Continued

Names of Operators and Mines	County	Name of General Superintendent	Post Office	Name of Superintendent	Post Office	Railroad to Mine
Lindsey Coal Mining Co. Lindsey Nos. 5 and 8,	Jefferson,	John J. Fisher,	Punxsutawney,	W. J. Chapman,	Punxsutawney,	Pennsylvania
Hamilton Coal Mining Co. Hamilton,	Indiana,	Edward Carlson,	Punxsutawney,	Edward Carlson,	Punxsutawney,	B. R. and P.
Clark Brothers Coal Mining Co. Falcon Nos. 5,† 5½,† 6,† 7 and 8,†	Indiana,	J. H. Miller,	Glen Campbell,	J. H. Miller,	Glen Campbell,	Pennsylvania
Hudson Coal Mining Co. Hudson,	Jefferson,	H. C. Winslow,	Punxsutawney,	H. C. Winslow,	Punxsutawney,	Pennsylvania

†Idle.

TABLE 2.—Number of tons of coal mined and tons of coke produced, number of days worked, number of persons employed, number killed and injured, quantity of powder, dynamite and permissible explosives used, etc.

Names of Operators and Mines	County	Number of tons of coal shipped to market	Number of tons used at mines for steam and heat	Number of tons sold to local trade and used by employes	Number of tons used in manufacture of coke	Total production of coal in tons	Total production of coke in tons	Number of coke ovens	Number of days worked	Number of employes	Number of fatal accidents	Number of non-fatal accidents	Explosives			Number of horses and mules
													Number of pounds of powder used	Number of pounds of dynamite used	Number of pounds of permissible explosives used	
Rochester and Pittsburgh Coal and Iron Co.																
Eleanora Nos. 2, 3 and Eleanora Shaft, ...	Jefferson, ...	518,942	39,622	4,377	66,660	629,601	46,000	201	294	695	4	5	26,300	600	69,000	22
Adrian No. 1, ...		215,570	40,100	4,453	206,557	466,680	96,605	508	272	532	1	....	40,375	1,300	....	16
Florence Nos. 1 and 2,..		412,108	13,775	1,250	....	427,133	....	......	294	370	1	3	26,250	4,000	....	8
Walston No. 3, ...		2,500	23,472	1,225	68,267	95,464	133,753	647	295	317	....	....	30,700	1,000	....	16
Helvetia-Stanley, ...	Clearfield, ...	581,849	33,898	2,525	8,250	576,522	4,735	40	287	596	3	6	90,000	8,100	....	22
Totals, ...	....	1,680,969	150,867	13,830	349,734	2,195,400	281,093	1,396	......	2,510	9	14	218,625	15,000	69,000	84
Clearfield Bituminous Coal Corporation																
Canoe Ridge Nos. 1, 3 and 4, ...	Indiana, ...	611,772	23,268	6,133	....	641,173	....	......	267	666	....	1	159,125	1,400	....	2
Barr, ...		128,051	5,155	121	....	133,827	....	......	256	175	....	1	50,000	2,500	....	3
Totals, ...	....	739,823	28,423	6,254	....	774,500	....	......	......	841	....	2	209,125	3,900	....	5
Jefferson and Clearfield Coal and Iron Co.																
Soldier Nos. 1, 2, 3 and 5, ...	Jefferson, ...	162,209	47,292	1,156	186,440	397,097	111,871	325	279	461	1	1	40,125	800	1,200	26

TABLE 2.—Continued

Names of Operators and Mines	County	Number of tons of coal shipped to market	Number of tons used at mines for steam and heat	Number of tons sold to local trade and used by employes	Number of tons used in manufacture of coke	Total production of coal in tons	Total production of coke in tons	Number of coke ovens	Number of days worked	Number of employes	Number of fatal accidents	Number of non-fatal accidents	Explosives: Number of pounds of powder used	Explosives: Number of pounds of dynamite used	Explosives: Number of pounds of permissible explosives used	Number of horses and mules
Pennsylvania Coal and Coke Corporation																—
Arcadia No. 40, ...	Indiana, ...	160,154	460	....	....	160,614	....	......	225	183	....	....	45,244	100	....	18
Arcadia No. 41, ...		90,643	2,379	1,758	....	94,780	....	......	229	141	....	....	26,700	50	....	....
Arcadia No. 43, ...		84,201	12	390	....	84,608	....	......	261	108	....	....	23,675	184	....	8
Arcadia No. 44, ...		42,155	162	104	....	42,421	....	......	207	48	....	4	12,835	50	....	8
Totals, ...	....	377,153	3,013	2,252	....	382,418	....	......	......	480	....	4	108,454	384	....	34
Cascade Coal and Coke Co.																
Sykesville Shaft, ...	Jefferson, ...	7,055	20,107	2,341	181,794	211,297	116,910	400	242	287	....	1	....	....	22,436	6
Ellsworth-Dunham Coal Co.																
Victor Nos. 11 and 14,..	Indiana, ...	181,470	4,683	670	....	186,823	....	......	266	171	....	4	37,360	1,380	....	1
Punxsutawney Coal Mining Co.																
Frances, ...	Indiana, ...	174,599	4,975	600	....	180,174	....	......	301	179	....	1	45,053	....	....	....
John McLeavy and Co.																
Sholler, ...	Jefferson, ...	133,670	2,021	267	....	135,958	....	......	304	104	....	....	15,000	....	....	18
Conrad, ...		40,884	....	15	....	40,899	....	......	289	46	....	....	20,000	....	....	7
Totals, ...	....	174,554	2,021	282	....	176,857	....	......	......	150	....	....	35,000	....	....	20

Dayton Coal Co. Dayton No. 1, ... Dayton No. 2, ...	Armstrong, ...	23,531 107,586	4,120 8,120	....	....	27,651 115,656	....	....	97 291	60 137	....	1	8,120 42,500	....	....	8 1
Totals, ...	....	131,067	12,240	....	....	143,307	....	......	......	197	....	1	50,620	....	....	9
Dixon Coal Co. Dixon No. 1, ...	Indiana, ...	139,821	1,950	467	....	142,238	....	......	264	142	....	2	10,250	1,312	2,947	....
Hillsdale Coal and Coke Co. Hillsdale No. 3, ... Hillsdale No. 4, ...	Indiana, ...	26,625 90,099	 125	345 13	....	26,970 90,237	....	....	172 273	50 89	....	....	5,743 21,685	....	....	 6
Totals, ...	....	116,724	125	358	....	117,207	....	......	......	139	....	....	27,428	....	....	6
Bowersville Coal Co. Bowersville, ...	Jefferson, ...	113,404	2,800	250	....	116,454	....	......	304	113	....	....	20,000	300	....	9
Urey Ridge Coal Co. Urey Nos. 1 and 5, ...	Indiana, ...	114,074	....	182	....	114,256	....	......	274	126	....	....	30,125	....	....	26
Summit Coal Mining Co. Summit Nos. 1 and 2,..	Armstrong, ...	101,735	....	....	....	101,735	....	......	217	77	1	....	50,150	....	....	4
Russell Coal Co. Victor No. 27, ...	Indiana, ...	92,457	2,752	....	....	95,209	....	......	253	123	....	....	19,050	1,143	....	3
Glenwood Coal Co. Glenwood Nos. 6½ and 12,	Indiana, ...	79,714	1,530	126	....	81,370	....	......	276	86	....	....	17,000	....	....	6
Bear Run Coal and Coke Co. Bear Run No. 2, ...	Indiana, ...	60,077	720	475	....	61,272	....	......	298	103	1	....	12,300	....	....	....
Chestnut Ridge Coal Co. Indiana No. 6.	Indiana, ...	57,575	....	300	....	57,875	....	......	255	90	....	2	15,000	200	....	10
Sutter Coal Co. Valier, ...	Jefferson, ...	41,792	1,203	....	....	42,995	....	......	251	41	....	....	7,250	....	....	4
Indiana Coal Co. Indiana Nos. 1 and 5,..	Indiana, ...	37,666	1,210	589	....	39,465	....	......	256	57	....	....	9.000	....	....	8
Dixonville Coal Co. Randolph No. 2, ...	Indiana, ...	38,000	....	200	....	38,200	....	......	288	54	1	....	6,000	200	....	5
Superior Coal Mining Co. Superior No. 1, ...	Indiana, ...	34,593	....	52	....	34,645	....	......	91	100	1	....	1,175	....	....	6

TABLE 2.—Continued

Names of Operators and Mines	County	Number of tons of coal shipped to market	Number of tons used at mines for steam and heat	Number of tons sold to local trade and used by employes	Number of tons used in manufacture of coke	Total production of coal in tons	Total production of coke in tons	Number of coke ovens	Number of days worked	Number of employes	Number of fatal accidents	Number of non-fatal accidents	Explosives: Number of pounds of powder used	Explosives: Number of pounds of dynamite used	Explosives: Number of pounds of permissible explosives used	Number of mules and horses
Cortez Coal Co.																
Cortez No. 1,	Jefferson,	14,450	....	......	....	14,450			[illegible]	[illegible]	[illegible]		[illegible]	[illegible]		[illegible]
Cortez No. 2,	Jefferson,	16,805	....	....	....	16,805			[illegible]	[illegible]			[illegible]	[illegible]		
Totals,	....	31,255	....	....	....	31,255				[illegible]	[illegible]		[illegible]	[illegible]		[illegible]
Madeira-Hill Coal Mining Co.																
Clover Run Nos. 2, 4 and 6,	Clearfield,	27,944	1,159	673	....	29,776			[illegible]	46			4,000	[illegible]		
Electric Coal Co.																
Electric No. 7,	Indiana,	23,726	285	1,100	....	25,111			[illegible]	60		1	[illegible]	[illegible]		[illegible]
Lindsey Coal Mining Co.																
Lindsey No. 5,	Jefferson,	18,975	1,010	1,015	....	21,000			[illegible]	[illegible]			[illegible]			[illegible]
Lindsey No. 8,	Jefferson,	2,750	150	......	....	2,900			[illegible]	[illegible]			[illegible]			
Totals,	....	21,725	1,160	1,015	....	23,900				[illegible]			[illegible]			[illegible]
Hamilton Coal Mining Co.																
Hamilton,	Indiana,	20,725	275	248	....	21,248			[illegible]	[illegible]		1	[illegible]			[illegible]

Clark Brothers Coal Mining Co.																
Falcon Nos. 5½ and 7,	Indiana,	20,875	20	....	....	20,895	....	......	269	28	....	....	4,820	....	....	2
Hudson Coal Mining Co.																
Hudson,	Jefferson,	10,055	....	160	....	10,215	....	......	260	19	....	....	3,000	....	....	3
Grand totals.	....	4,812,836	288,810	33,580	717,968	5,853,194	500,874	2,121	......	6,811	16	34	1,034,135	26,049	95,583	292

TABLE 2—Part 2

Names of Operators	County	Number of Boilers					Locomotives				Number of steam engines of all classes	Total horse power	Number of pumps delivering water to surface	Capacity in gallons per minute	Quantity delivered to surface per minute—gallons	Number of electric dynamos	Number of air compressors
		Cylindrical	Horse power	Tubular	Horse power	Total horse power	Gasoline	Steam	Air	Electric							
Rochester and Pittsburgh Coal and Iron Co.,	Jefferson Clearfield,	1	70	90	12,220	12,290	....	9	....	52	65	9,570	16	40.350	15,900	15	25
Clearfield Bituminous Coal Corporation,	Indiana,	......	......	16	2,400	2,400	....	....	....	16	14	2,352	4	900	550	5	5
Jefferson and Clearfield Coal and Iron Co.,	Jefferson,	......	......	21	3,050	3,050	....	....	....	8	3	820	5	15,000	6,000	2	7
Pennsylvania Coal and Coke Corporation,	Indiana,	......	......	4	530	530	3	....	....	2	2	440	3	110	110	1	......
Cascade Coal and Coke Co.,	Jefferson,	......	......	6	1,812	1,812	....	....	....	13	5	1,150	3	5,130	800	4	3
Ellsworth-Dunham Coal Co.,	Indiana,	......	......	5	750	750	....	....	....	4	5	875	1	200	117	2	......
Punxsutawney Coal Mining Co.,	Indiana,	......	......	4	500	500	....	....	....	3	3	300	3	200	200	2	2
John McLeavy and Co.,	Jefferson,	......	......	2	220	220	....	....	....	....	2	330	....	....	....	......	2
Dayton Coal Co.,	Armstrong,	......	......	3	240	240	....	....	....	1	2	150	5	500	250	......	1
Dixon Coal Co.,	Indiana,	......	......	2	300	300	....	....	....	4	2	300	3	200	135	1	......
Hillsdale Coal and Coke Co.,	Indiana,	......	......	....	....	....	....	....	....	1	......	....	....	....	....	1	......
Bowersville Coal Co.,	Jefferson,	......	......	4	600	600	....	....	....	....	2	185	3	210	210	......	3
Summit Coal Mining Co.,	Armstrong,	......	......	4	460	460	....	1	....	1	2	200	3	300	250	1	1
Russell Coal Co.,	Indiana,	......	......	2	210	210	....	....	....	1	2	280	1	175	150	1	1
Glenwood Coal Co.,	Indiana,	......	......	2	300	300	....	....	....	1	2	250	....	....	....	2	......
Bear Run Coal and Coke Co.,	Indiana,	......	......	1	150	150	....	....	....	1	1	250	....	....	....	1	......
Chestnut Ridge Coal Co.,	Indiana,	......	......	....	....	....	1	....	....	....	......	....	....	....	....	......	......
Sutter Coal Co.,	Jefferson,	......	......	1	80	80	....	....	....	....	2	150	....	....	....	......	1
Indiana Coal Co.,	Indiana,	2	250	....	....	250	....	....	....	1	2	250	1	150	100	1	......

Madeira-Hill Coal Mining Co.,	Clearfield,	......	......	2	300	300	....	....	....	1	2	175	1	60	60	1	......
Electric Coal Co.,	Indiana,	......	......	2	180	180	....	....	....	....	2	150	1	100	100	......	......
Lindsey Coal Mining Co.,	Jefferson,	1	25	3	210	235	....	....	....	....	3	150	....	....	....	......	1
Hamilton Coal Mining Co.,	Indiana,	......	......	1	20	20	....	....	....	....	1	15	....	....	....	......	......
Totals,	....	4	345	175	24,532	24,877	4	10	....	110	124	18,322	53	63.585	24,932	40	52

TABLE 3.—Number of Each Class of Employes Inside and Outside of Mines

Names of Operators	County	Inside												Outside								Grand total inside and outside
		Mine foremen	Assistant mine foremen	Fire bosses	Miners	Machine runners	Machine loaders	Machine scrapers	Drivers and runners	Doorboys and helpers	Company men	All other employes	Total inside	Superintendents	Foremen	Blacksmiths and carpenters	Engineers and firemen	Coke employes	Bookkeepers and clerks	All other employes	Total outside	
Rochester and Pittsburgh Coal and Iron Co., ...	Jefferson, ... Clearfield, ..	9	8	15	448	45	952	45	143	18	200	......	1,923	5	5	35	109	190	5	238	587	2,510
Clearfield Bituminous Coal Corporation, ..	Indiana, ...	4	7	....	69	27	505	27	1	4	....	100	744	2	....	10	17	....	2	66	97	841
Jefferson and Clearfield Coal and Iron Co., ...	Jefferson, ...	3	4	2	41	10	183	10	30	6	33	6	328	1	2	10	18	80	....	22	133	461
Pennsylvania Coal and Coke Corporation, ..	Indiana, ...	4	3	....	315	4	65	4	21	5	14	2	437	1	....	8	5	....	3	26	43	480
Cascade Coal and Coke Co., ...	Jefferson, ...	1	3	2	67	8	74	8	11	....	30	1	206	1	1	3	6	52	2	17	82	287
Ellsworth - Dunham Coal Co., ...	Indiana, ...	1	1	....	38	7	74	7	8	....	....	13	149	1	....	3	6	....	1	11	22	171
Punxsutawney Coal Mining Co., ...	Indiana, ...	1	1	....	8	4	132	4	6	1	5	......	162	1	....	2	4	....	2	8	17	179
John McLeavy and Co., ...	Jefferson, ...	2	....	....	112	3	......	3	9	1	3	1	134	1	....	1	4	....	1	9	16	150
Dayton Coal Co., ...	Armstrong, ...	2	....	....	24	8	117	8	8	5	4	4	180	2	....	2	4	....	2	7	17	197
Dixon Coal Co., ...	Indiana, ...	1	1	....	11	6	87	6	......	2	11	......	125	1	....	4	2	....	1	9	17	142
Hillsdale Coal and Coke Co., ...	Indiana, ...	2	....	....	69	3	39	3	2	....	9	......	127	1	....	2	....	....	1	8	12	139
Bowersville Coal Co.,	Jefferson, ...	1	....	....	......	9	71	9	7	....	....	2	99	1	....	2	3	....	2	6	14	113
Urey Ridge Coal Co.,	Indiana, ...	2	1	....	55	4	35	4	8	....	3	......	112	1	....	3	....	....	1	9	14	126
Summit Coal Mining Co., ...	Armstrong, ...	1	....	....	20	3	37	3	4	2	2	......	72	1	....	1	2	....	1	....	5	77
Russell Coal Co., ...	Indiana, ...	1	....	....	100	......	......	......	3	2	....	7	118	1	....	2	2	....	....	5	10	123
Glenwood Coal Co., ..	Indiana, ...	2	....	....	43	2	22	2	5	....	2	......	78	1	....	1	1	....	1	4	8	85

Bear Run Coal and Coke Co., ...	Indiana, ...	1	....	....	13	3	71	3	2	....	2	......	95	1	...	2	2	....	....	3	8	108
Chestnut Ridge Coal Co., ...	Indiana, ...	1	....	....	80	......	......	......	2	....	....	2	85	1	....	1	....	....	1	2	5	90
Sutter Coal Co., ...	Jefferson, ...	1	....	....	18	1	12	1	......	1	1	......	35	1	1	1	3	....	....	....	6	41
Indiana Coal Co., ...	Indiana, ...	2	....	....	32	1	5	1	3	....	....	3	47	1	2	....	2	....	2	3	10	57
Dixonville Coal Co.,..	Indiana, ...	1	....	....	47	......	......	......	3	....	....	......	51	1	....	1	....	....	....	1	3	54
Superior Coal Mining Co., ...	Indiana, ...	1	....	....	80	......	......	......	5	....	5	......	91	1	....	1	....	....	1	6	9	100
Cortez Coal Co., ...	Jefferson, ...	2	....	....	32	......	......	......	3	....	1	1	39	1	....	....	....	....	1	3	5	44
Madeira-Hill Coal Mining Co., ...	Clearfield, ...	1	....	....	36	......	......	......	2	....	....	......	39	1	1	1	1	....	1	1	6	45
Electric Coal Co., ...	Indiana, ...	1	....	....	50	......	......	......	4	....	7	......	62	1	....	2	....	....	1	3	7	69
Lindsey Coal Mining Co., ...	Jefferson, ...	2	....	....	22	1	8	1	3	....	....	......	37	2	....	....	2	....	1	....	5	42
Hamilton Coal Mining Co., ...	Indiana, ...	1	....	....	31	......	......	......	1	....	1	......	34	1	....	....	....	....	....	2	3	37
Clark Brothers Coal Mining Co., ...	Indiana, ...	1	....	....	23	......	......	......	1	....	....	......	25	1	....	....	....	....	1	1	3	28
Hudson Coal Mining Co., ...	Jefferson, ...	1	....	....	14	......	......	......	2	....	....	1	18	1	....	....	....	....	....	....	1	19
Totals, ...	....	53	29	19	1,938	149	2,489	149	297	47	333	143	5,646	36	12	98	193	322	34	470	1,165	6,811

TABLE 1.—Continued

Names of Operators and Mines	County	Name of General Superintendent	Post Office	Name of Superintendent	Post Office	Railroad to Mine
Lindsey Coal Mining Co. Lindsey Nos. 5 and 8,	Jefferson,	John J. Fisher,	Punxsutawney,	W. J. Chapman,	Punxsutawney,	Pennsylvania
Hamilton Coal Mining Co. Hamilton,	Indiana,	Edward Carlson,	Punxsutawney,	Edward Carlson,	Punxsutawney,	B. R. and P.
Clark Brothers Coal Mining Co.						
Falcon Nos. 5,† 5½,† 6,† 7 and 8,†	Indiana,	J. H. Miller,	Glen Campbell,	J. H. Miller,	Glen Campbell,	Pennsylvania
Hudson Coal Mining Co. Hudson,	Jefferson,	H. C. Winslow,	Punxsutawney,	H. C. Winslow,	Punxsutawney,	Pennsylvania

†Idle.

TABLE 2.—Number of tons of coal mined and tons of coke produced, number of days worked, number of persons employed, number killed and injured, quantity of powder, dynamite and permissible explosives used, etc.

Names of Operators and Mines	County	Number of tons of coal shipped to market	Number of tons used at mines for steam and heat	Number of tons sold to local trade and used by employes	Number of tons used in manufacture of coke	Total production of coal in tons	Total production of coke in tons	Number of coke ovens	Number of days worked	Number of employes	Number of fatal accidents	Number of non-fatal accidents	Explosives			Number of horses and mules
													Number of pounds of powder used	Number of pounds of dynamite used	Number of pounds of permissible explosives used	
Rochester and Pittsburgh Coal and Iron Co.																
Eleanora Nos. 2, 3 and Eleanora Shaft, ...	Jefferson, ...	518,942	39,622	4,377	66,660	629,601	46,000	201	294	695	4	5	26,300	600	69,000	22
Adrian No. 1, ...		215,570	40,100	4,453	206,557	466,680	96,605	508	272	532	1	....	40,375	1,300	....	16
Florence Nos. 1 and 2,..		412,108	13,775	1,250	....	427,133	....	......	294	370	1	3	26,250	4,000	....	8
Walston No. 3, ...		2,500	23,472	1,225	68,267	95,464	133,753	647	295	317	....	....	30,700	1,000	....	16
Helvetia-Stanley, ...	Clearfield, ...	581,849	33,898	2,525	8,250	576,522	4,735	40	287	596	3	6	90,000	8,100	....	22
Totals, ...	....	1,680,969	150,867	13,830	349,734	2,195,400	281,093	1,396	......	2,510	9	14	218,625	15,000	69,000	84
Clearfield Bituminous Coal Corporation																
Canoe Ridge Nos. 1, 3 and 4, ...	Indiana, ...	611,772	23,268	6,133	....	641,173	....	......	267	666	....	1	159,125	1,400	....	2
Barr, ...		128,051	5,155	121	....	133,327	....	......	256	175	....	1	50,000	2,500	....	3
Totals, ...	....	739,823	28,423	6,254	....	774,500	....	......	......	841	....	2	209,125	3,900	....	5
Jefferson and Clearfield Coal and Iron Co.																
Soldier Nos. 1, 2, 3 and 5, ...	Jefferson, ...	162,209	47,292	1,156	186,440	397,097	111,871	325	279	461	1	1	40,125	800	1,200	26

TABLE 2.—Continued

Names of Operators and Mines	County	Number of tons of coal shipped to market	Number of tons used at mines for steam and heat	Number of tons sold to local trade and used by employes	Number of tons used in manufacture of coke	Total production of coal in tons	Total production of coke in tons	Number of coke ovens	Number of days worked	Number of employes	Number of fatal accidents	Number of non-fatal accidents	Explosives			Number of horses and mules
													Number of pounds of powder used	Number of pounds of dynamite used	Number of pounds of permissible explosives used	
Pennsylvania Coal and Coke Corporation																—
Arcadia No. 40, ...	Indiana, ...	160,154	460	....	....	160,614	....	......	225	183	....	....	45,244	100	....	18
Arcadia No. 41, ...		90,643	2,379	1,758	....	94,780	....	......	229	141	....	....	26,700	50	....	....
Arcadia No. 43, ...		84,201	12	390	....	84,603	....	......	261	105	....	....	23,675	184	....	8
Arcadia No. 44, ...		42,155	162	104	....	42,421	....	......	207	48	....	4	12,835	50	....	8
Totals, ...	....	377,153	3,013	2,252	....	382,418	....	......	......	480	....	4	108,454	384	....	34
Cascade Coal and Coke Co.																
Sykesville Shaft, ...	Jefferson, ...	7,055	20,107	2,341	181,794	211,297	116,910	400	242	287	....	1	....	....	22,436	6
Ellsworth-Dunham Coal Co.																
Victor Nos. 11 and 14,..	Indiana, ...	181,470	4,683	670	....	186,823	....	......	266	171	....	4	37,360	1,380	....	1
Punxsutawney Coal Mining Co.																
Frances, ...	Indiana, ...	174,599	4,975	600	....	180,174	....	......	301	179	....	1	45,058	....	....	....
John McLeavy and Co.																
Sholler, ...	Jefferson, ...	133,670	2,021	267	....	135,958	....	......	304	104	....	....	15,000	....	....	13
Conrad, ...		40,884	....	15	....	40,899	....	......	289	46	....	....	20,000	....	....	7
Totals, ...	....	174,554	2,021	282	....	176,857	....	......	......	150	....	....	35,000	....	....	20

Dayton Coal Co.																
Dayton No. 1, ...	Armstrong, ...	23,531	4,120	....	....	27,651	....	......	97	60	....	1	8,120	....	....	8
Dayton No. 2, ...		107,536	8,120	....	....	115,656	....	......	291	137	....	....	42,500	....	....	1
Totals, ...	....	131,067	12,240	....	....	143,307	....	......	......	197	....	1	50,620	....	....	9
Dixon Coal Co.																
Dixon No. 1, ...	Indiana, ...	139,821	1,950	467	....	142,238	....	......	264	142	....	2	10,250	1,312	2,947	....
Hillsdale Coal and Coke Co.																
Hillsdale No. 3, ...	Indiana, ...	26,625	....	345	....	26,970	....	......	172	50	....	....	5,743	....	....	....
Hillsdale No. 4, ...		90,099	125	13	....	90,237	....	......	273	89	....	....	21,685	....	....	6
Totals, ...	....	116,724	125	358	....	117,207	....	......	......	139	....	....	27,428	....	....	6
Bowersville Coal Co.																
Bowersville, ...	Jefferson, ...	113,404	2,800	250	....	116,454	....	......	304	113	....	....	20,000	300	....	9
Urey Ridge Coal Co.																
Urey Nos. 1 and 5, ...	Indiana, ...	114,074	....	182	....	114,256	....	......	274	126	....	....	30,125	....	....	26
Summit Coal Mining Co.																
Summit Nos. 1 and 2,..	Armstrong, ...	101,735	....	....	....	101,735	....	......	217	77	1	....	50,150	....	....	4
Russell Coal Co.																
Victor No. 27, ...	Indiana, ...	92,457	2,752	....	....	95,209	....	......	253	123	....	....	19,050	1,143	....	3
Glenwood Coal Co.																
Glenwood Nos. 6½ and 12,	Indiana, ...	79,714	1,530	126	....	81,370	....	......	276	86	....	....	17,000	....	....	6
Bear Run Coal and Coke Co.																
Bear Run No. 2, ...	Indiana, ...	60,077	720	475	....	61,272	....	......	298	103	1	....	12,300	....	....	....
Chestnut Ridge Coal Co.																
Indiana No. 6.	Indiana, ...	57,575	....	300	....	57,875	....	......	255	90	....	2	15,000	200	....	10
Sutter Coal Co.																
Valier, ...	Jefferson, ...	41,792	1,203	....	....	42,995	....	......	251	41	....	....	7,250	....	....	4
Indiana Coal Co.																
Indiana Nos. 1 and 5,..	Indiana, ...	37,666	1,210	589	....	39,465	....	......	256	57	....	....	9,000	....	....	8
Dixonville Coal Co.																
Randolph No. 2, ...	Indiana, ...	38,000	....	200	....	38,200	....	......	288	54	1	....	6,000	200	....	5
Superior Coal Mining Co.																
Superior No. 1, ...	Indiana, ...	34,593	....	52	....	34,645	....	......	91	100	1	....	1,175	....	....	6

TABLE 2.—Continued

Names of Operators and Mines	County	Number of tons of coal shipped to market	Number of tons used at mines for steam and heat	Number of tons sold to local trade and used by employes	Number of tons used in manufacture of coke	Total production of coal in tons	Total production of coke in tons	Number of coke ovens	Number of days worked	Number of employes	Number of fatal accidents	Number of non-fatal accidents	Explosives: Number of pounds of powder used	Explosives: Number of pounds of dynamite used	Explosives: Number of pounds of permissible explosives used	Number of horses and mules
Cortez Coal Co.																
Cortez No. 1,	Jefferson,	14,450				14,450			262	23	2		21,050	100		3
Cortez No. 2,		16,805				16,805			262	21			22,000	30		
Totals,		31,255				31,255				44	2		43,050	130		3
Madeira-Hill Coal Mining Co.																
Clover Run Nos. 2, 4 and 6,	Clearfield,	27,944	1,159	673		29,776			298	45			4,000	1,100		
Electric Coal Co.																
Electric No. 7,	Indiana,	23,726	285	1,100		25,111			143	69		1	9,130	200		5
Lindsey Coal Mining Co.																
Lindsey No. 5,	Jefferson,	18,975	1,010	1,015		21,000			274	26			550			3
Lindsey No. 8,		2,750	150			2,900			101	16			275			1
Totals,		21,725	1,160	1,015		23,900				42			825			4
Hamilton Coal Mining Co.																
Hamilton,	Indiana,	20,725	275	248		21,248			278	37		1	5,220			3

Clark Brothers Coal Mining Co.																
Falcon Nos. 5½ and 7,..	Indiana, ...	20,875	20	....	....	20,895	....	......	269	28	....	....	4,820	....	....	2
Hudson Coal Mining Co.																
Hudson, ...	Jefferson, ...	10,055	....	160	....	10,215	....	......	260	19	....	....	3,000	....	....	3
Grand totals.	....	4,812,836	288,810	33,580	717,968	5,853,194	500,874	2,121	......	6,811	16	34	1,034,135	26,049	95,583	292

TABLE 2—Part 2

Names of Operators	County	Number of Boilers					Locomotives				Number of steam engines of all classes	Total horse power	Number of pumps delivering water to surface	Capacity in gallons per minute	Quantity delivered to surface per minute—gallons	Number of electric dynamos	Number of air compressors
		Cylindrical	Horse power	Tubular	Horse power	Total horse power	Gasoline	Steam	Air	Electric							
Rochester and Pittsburgh Coal and Iron Co.,	Jefferson Clearfield,	1	70	90	12,220	12,290	....	9	....	52	65	9,570	16	40,350	15,900	15	25
Clearfield Bituminous Coal Corporation,	Indiana,	......	......	16	2,400	2,400	....	....	....	16	14	2,352	4	900	550	5	5
Jefferson and Clearfield Coal and Iron Co.,	Jefferson,	......	......	21	3,050	3,050	....	....	....	8	3	820	5	15,000	6,000	2	7
Pennsylvania Coal and Coke Corporation,	Indiana,	......	......	4	530	530	3	....	....	2	2	440	3	110	110	1	......
Cascade Coal and Coke Co.,	Jefferson,	......	......	6	1,812	1,812	....	....	....	13	5	1,150	3	5,130	800	4	3
Ellsworth-Dunham Coal Co.,	Indiana,	......	......	5	750	750	....	....	....	4	5	875	1	200	117	2	......
Punxsutawney Coal Mining Co.,	Indiana,	......	......	4	500	500	....	....	....	3	3	300	3	200	200	2	2
John McLeavy and Co.,	Jefferson,	......	......	2	220	220	....	....	....	....	2	330	....	....	....	......	2
Dayton Coal Co.,	Armstrong,	......	......	3	240	240	....	....	....	1	2	150	5	500	250	......	1
Dixon Coal Co.,	Indiana,	......	......	2	300	300	....	....	....	4	2	300	3	200	135	1	......
Hillsdale Coal and Coke Co.,	Indiana,	......	......	....	....	....	....	....	....	1	......	....	....	....	....	1	......
Bowersville Coal Co.,	Jefferson,	......	......	4	600	600	....	....	....	....	2	185	3	210	210	......	3
Summit Coal Mining Co.,	Armstrong,	......	......	4	460	460	....	1	....	1	2	200	3	300	250	1	1
Russell Coal Co.,	Indiana,	......	......	2	210	210	....	....	....	1	2	260	1	175	150	1	1
Glenwood Coal Co.,	Indiana,	......	......	2	300	300	....	....	....	1	2	250	....	....	....	2	......
Bear Run Coal and Coke Co.,	Indiana,	......	......	1	150	150	....	....	....	1	1	250	....	....	....	1	......
Chestnut Ridge Coal Co.,	Indiana,	......	......	....	....	....	1	....	....	....	......	....	....	....	....	......	......
Sutter Coal Co.,	Jefferson,	......	......	1	80	80	....	....	....	....	2	150	....	....	....	......	1
Indiana Coal Co.,	Indiana,	2	250	....	....	250	....	....	....	1	2	250	1	150	100	1	......

Madeira-Hill Coal Mining Co.,	Clearfield,	......	......	2	300	300	....	....	....	1	2	175	1	60	60	1	......
Electric Coal Co.,	Indiana,	......	......	2	180	180	....	....	....	....	2	150	1	100	100	......	......
Lindsey Coal Mining Co.,	Jefferson,	1	25	3	210	235	....	....	....	....	3	150	....	....	....	......	1
Hamilton Coal Mining Co.,	Indiana,	......	......	1	20	20	....	....	....	....	1	15	....	....	....	......	......
Totals,	....	4	345	175	24,532	24,877	4	10	....	110	124	18,322	53	63.585	24,982	40	52

TABLE 3.—Number of Each Class of Employes Inside and Outside of Mines

Names of Operators	County	Inside												Outside								
		Mine foremen	Assistant mine foremen	Fire bosses	Miners	Machine runners	Machine loaders	Machine scrapers	Drivers and runners	Doorboys and helpers	Company men	All other employes	Total inside	Superintendents	Foremen	Blacksmiths and carpenters	Engineers and firemen	Coke employes	Bookkeepers and clerks	All other employes	Total outside	Grand total inside and outside
Rochester and Pittsburgh Coal and Iron Co., ...	Jefferson, ... Clearfield, ..	9	8	15	448	45	952	45	143	18	200	......	1,923	5	5	35	109	190	5	238	587	2,510
Clearfield Bituminous Coal Corporation, ..	Indiana, ...	4	7	....	69	27	505	27	1	4	....	100	744	2	....	10	17	....	2	66	97	841
Jefferson and Clearfield Coal and Iron Co., ...	Jefferson, ...	3	4	2	41	10	133	10	30	6	33	6	328	1	2	10	18	80	....	22	133	461
Pennsylvania Coal and Coke Corporation, ..	Indiana, ...	4	3	....	315	4	65	4	21	5	14	2	437	1	....	8	5	....	3	26	43	480
Cascade Coal and Coke Co., ...	Jefferson, ...	1	3	2	67	8	74	8	11	....	30	1	205	1	1	3	6	52	2	17	82	287
Ellsworth - Dunham Coal Co., ...	Indiana, ...	1	1	....	38	7	74	7	8	....	....	13	149	1	....	3	6	....	1	11	22	171
Punxsutawney Coal Mining Co., ...	Indiana, ...	1	1	....	8	4	132	4	6	1	5	......	162	1	....	2	4	....	2	8	17	179
John McLeavy and Co., ...	Jefferson, ...	2	....	....	112	3	......	3	9	1	3	1	134	1	....	1	4	....	1	9	16	150
Dayton Coal Co., ...	Armstrong, ...	2	....	....	24	8	117	8	8	5	4	4	180	2	....	2	4	....	2	7	17	197
Dixon Coal Co., ...	Indiana, ...	1	1	....	11	6	87	6	......	2	11	......	125	1	....	4	2	....	1	9	17	142
Hillsdale Coal and Coke Co., ...	Indiana, ...	2	....	....	69	3	39	3	2	....	9	......	127	1	....	2	....	....	1	8	12	139
Bowersville Coal Co.,	Jefferson, ...	1	....	....	......	9	71	9	7	....	....	2	99	1	....	2	3	....	2	6	14	113
Urey Ridge Coal Co.,	Indiana, ...	2	1	....	55	4	35	4	8	....	3	......	112	1	....	3	....	....	1	9	14	126
Summit Coal Mining Co., ...	Armstrong, ...	1	....	....	20	3	37	3	4	2	2	......	72	1	....	1	2	....	1	....	5	77
Russell Coal Co., ...	Indiana, ...	1	....	....	100	......	......	......	3	2	....	7	113	1	....	2	2	....	....	5	10	123
Glenwood Coal Co., ..	Indiana, ...	2	....	....	43	2	22	2	5	....	2	......	78	1	....	1	1	....	1	4	8	85

Bear Run Coal and Coke Co., ...	Indiana, ...	1	....	....	13	3	71	3	2	....	2	......	95	1	....	2	2	....	....	3	8	108
Chestnut Ridge Coal Co., ...	Indiana, ...	1	....	....	80	......	......	......	2	....	....	2	85	1	....	1	....	....	1	2	5	90
Sutter Coal Co., ...	Jefferson, ...	1	....	....	18	1	12	1	......	1	1	......	35	1	1	1	3	....	....	....	6	41
Indiana Coal Co., ...	Indiana, ...	2	....	....	32	1	5	1	3	....	....	3	47	1	2	....	2	....	2	3	10	57
Dixonville Coal Co.,..	Indiana, ...	1	....	....	47	......	......	......	3	....	....	......	51	1	....	1	....	....	....	1	3	54
Superior Coal Mining Co., ...	Indiana, ...	1	....	....	80	......	......	......	5	....	5	......	91	1	....	1	....	....	1	6	9	100
Cortez Coal Co., ...	Jefferson, ...	2	....	....	32	......	......	......	3	....	1	1	39	1	....	....	....	....	1	3	5	44
Madeira-Hill Coal Mining Co., ...	Clearfield, ...	1	....	....	36	......	......	......	2	....	....	......	39	1	1	1	1	....	1	1	6	45
Electric Coal Co., ...	Indiana, ...	1	....	....	50	......	......	......	4	....	7	......	62	1	....	2	....	....	1	3	7	69
Lindsey Coal Mining Co., ...	Jefferson, ...	2	....	....	22	1	8	1	3	....	....	......	37	2	....	....	2	....	1	....	5	42
Hamilton Coal Mining Co., ...	Indiana, ...	1	....	....	31	......	......	......	1	....	1	......	34	1	....	....	....	....	....	2	3	37
Clark Brothers Coal Mining Co., ...	Indiana, ...	1	....	....	23	......	......	......	1	....	....	......	25	1	....	....	....	....	1	1	3	28
Hudson Coal Mining Co., ...	Jefferson, ...	1	....	....	14	......	......	......	2	....	....	1	18	1	....	....	....	....	....	....	1	19
Totals, ...	....	53	29	19	1,938	149	2,489	149	297	47	333	143	5,646	36	12	98	193	322	34	470	1,165	6,811

TABLE 3.—Part 2

Names of Operators	County	Average Number of Days Worked												
		January	February	March	April	May	June	July	August	September	October	November	December	Total
Rochester and Pittsburgh Coal and Iron Co.,	Jefferson, Clearfield,	26	24	25	19	25	24	25	25	25	27	23	20	288
Clearfield Bituminous Coal Corporation,	Indiana,	26	19	24	22	17	18	23	25	23	21	18	25	261
Jefferson and Clearfield Coal and Iron Co.,	Jefferson,	25	23	25	24	25	23	24	20	20	26	24	20	279
Pennsylvania Coal and Coke Corporation,	Indiana,	26	18	19	15	13	14	21	12	23	24	23	22	230
Cascade Coal and Coke Co.,	Jefferson,	25	22	22	24	21	18	18	5	25	26	21	15	242
Ellsworth-Dunham Coal Co.,	Indiana,	22	22	20	24	21	24	23	22	24	24	19	21	266
Punxsutawney Coal Mining Co.,	Indiana,	26	24	25	25	26	25	25	26	25	27	23	24	301
John McLeavy and Co.,	Jefferson,	26	24	26	26	26	25	25	21	25	27	24	22	297
Dayton Coal Co.,	Armstrong,	13	12	13	9	12	13	12	13	24	27	24	22	194
Dixon Coal Co.,	Indiana,	23	22	24	16	21	23	22	22	21	24	22	24	264
Hillsdale Coal and Coke Co.,	Indiana,	17	19	18	20	14	12	13	22	24	25	22	16	222
Bowersville Coal Co.,	Jefferson,	26	24	25	25	26	24	25	27	25	27	25	25	304
Urey Ridge Coal Co.,	Indiana,	23	24	25	14	21	20	25	24	23	27	23	25	274
Summit Coal Mining Co.,	Armstrong,	26	24	26	18	24	25	12	13	12	14	12	11	217
Russell Coal Co.,	Indiana,	21	21	22	21	21	21	22	22	19	22	20	21	253
Glenwood Coal Co.,	Indiana,	25	23	21	15	21	22	26	25	23	27	22	26	276
Bear Run Coal and Coke Co.,	Indiana,	25	25	24	25	26	24	24	26	25	26	23	25	298
Chestnut Ridge Coal Co.,	Indiana,	24	24	22	15	20	19	22	18	21	23	23	24	255
Sutter Coal Co.,	Jefferson,	25	21	20	17	14	22	25	24	24	27	22	10	251
Indiana Coal Co.,	Indiana,	25	23	24	20	20	24	19	23	20	19	21	18	256
Dixonville Coal Co.,	Indiana,	25	22	26	24	25	24	20	21	26	25	25	25	288
Superior Coal Mining Co.,	Indiana,	25	......	......	......	......	24	......	......	......	......	23	19	91
Cortez Coal Co.,	Jefferson,	24	18	20	20	21	20	21	26	22	25	23	22	262
Madeira-Hill Coal Mining Co.,	Clearfield,	27	24	26	24	24	24	24	25	25	26	24	25	298
Electric Coal Co.,	Indiana,	......	......	......	......	2	11	23	23	21	23	23	17	143
Lindsey Coal Mining Co.,	Jefferson,	12	11	12	11	11	13	10	22	22	19	21	24	188
Hamilton Coal Mining Co.,	Indiana,	20	20	20	21	26	23	26	24	26	25	24	23	278
Clark Brothers Coal Mining Co.,	Indiana,	25	24	25	21	25	20	24	24	22	23	18	18	269
Hudson Coal Mining Co.,	Jefferson,	24	19	18	16	15	24	25	22	25	25	24	23	260

.TABLE 4.—Fatal Accidents Inside and Outside of Mines

Date of accident		Name of Person	Nationality	Occupation	Age	Married or single	Number of widows	Number of orphans	Name of Mine	County	Nature and Cause of Accident in Brief
Jan.	20	Mike Kowalon, ...	Slavonian,..	Miner, ...	26	S.	....	....	Randolph No. 2,	Indiana, ...	Instantly killed by fall of slate while undermining first cut of new cross heading off main heading.
	21	David Brown, ...	Scotch, ...	Company man	25	M.	1	2	Helvetia - Stanley.	Clearfield, ...	Fatally injured by fall of roof on roadway while extending air pipe line.
March	1	Antony Cavileri, ...	Italian, ...	Loader, ...	23	S.	....	....	Florence No. 1,..	Jefferson,.......	Killed by fall of slate at face of room while loading car.
	8	Otto Peterson, ...	Swedish,....	Miner, ...	45	M.	1	4	Cortez No. 1, ..	Jefferson,......	Instantly killed by fall of slate at face of cross-cut while undermining.
		Edward Peterson, ..	Swedish,....	Miner, ...	17	S.	....	....			
May	18	Fred Uhaas, ...	Slavonian,..	Miner, ...	19	S.	....	....	Eleanora No. 2,..	Jefferson,.......	Killed by fall of coal at face of pillar while taking down slate.
	23	Phillip Shuntusky, ...	Polish, ...	Motorman, ..	32	M.	1	....	Eleanora No. 2,..	Jefferson,.......	Killed by coming in contact with electric wire on main heading.
	26	John Dugh, ...	Slavonian,..	Driver, ...	25	M.	1	2	Helvetia - Stanley.	Clearfield, ...	Killed by falling under trip of loaded cars on side track while cars were in motion.
July	28	Pasquale Noterian, ...	Italian, ...	Miner, ...	17	S.	....	....	Summit No. 2, ..	Armstrong,.....	Killed by fall of slate at face of room while shoveling coal.
Aug.	13	John Gulish, ...	Slavonian,..	Doorboy, ...	63	M.	1	1	Helvetia - Stanley.	Clearfield, ...	Killed by being caught between trip of loaded cars and coal pillar on main haulage road.
	18	Mike Gregar, ...	Slavonian,..	Miner, ...	23	S.	....	....	Superior No. 1,..	Indiana, ...	Killed at face of room by fall of coal while undermining.
	20	Samuel Spencer, ...	American, ..	Miner, ...	26	M.	1	1	Bear Run No. 2,	Indiana, ...	Fatally injured by fall of slate at face of heading stumps while shoveling coal.
	28	Stiny Stone, ...	Polish,......	Miner, ...	28	S.	....	....	Eleanora Shaft, .	Jefferson,.......	Fatally injured by fall of slate at face of heading while shoveling coal.
Sept.	22	Sandy Charima, ...	Italian, ...	Miner, ...	33	M.	1	4	Soldier No. 5,....	Jefferson,.......	Instantly killed by fall of roof at face of room while loading car.
Nov.	11	Peter Zuchalsky, ...	Polish,......	Loader, ...	62	M.	1	....	Adrian No. 1, ..	Jefferson,.......	Fatally injured by fall of roof at face of room while extending road.
	12	George Olch, ...	Austrian, ..	Miner, ...	30	M.	1	1	Eleanora No. 2,..	Jefferson,.......	Killed by fall of slate at face of pillar while shoveling coal.

TABLE 5.—Non-Fatal Accidents Inside and Outside of Mines

Date of accident		Name of Person	Nationality	Occupation	Age	Married or single	Name of Mine	County	Nature and Cause of Accident in Brief
Jan.	20	Thomas Sadlock, ...	Polish,......	Miner, ...	35	M.	Victor No. 14, ...	Indiana, ...	Leg broken by fall of slate at face of heading stumps.
	22	Steve Peatro, ...	Slavonian,..	Company man, ..	38	M.	Helvetia-Stanley, ...	Clearfield,.......	Leg broken by fall of roof while timbering on heading.
	25	Mike Kuruts, ...	Slavonian,..	Driver, ...	22	S.	Helvetia-Stanley, ...	Clearfield,.......	Arm broken while handling cars on heading.
		Matta Parenella, ...	Italian, ...	Loader, ...	32	M.	Florence No. 1, ...	Jefferson,.......	Leg broken by fall of coal at face of room while shoveling coal.
Feb.	21	Peter Wojnar, ...	Polish,......	Miner, ...	26	S.	Victor No. 14, ...	Indiana, ...	Leg broken by fall of slate while working at face of pillar.
	25	Edward Broadbent, ..	American, ..	Miner, ...	19	S.	Helvetia-Stanley, ...	Clearfield,.......	Leg broken by fall of coal at face of room while shoveling coal.
March	25	Mike Dugan, ...	Scotch, ...	Miner, ...	22	S.	Eleanora Shaft, ...	Jefferson,.......	Rib broken and side bruised by fall of slate at face of heading while undermining.
April	8	Thomas Barron, ...	American, ..	Loader, ...	21	S.	Florence No. 1, ...	Jefferson,.......	Laceration of scalp and chin cut by fall of slate near face of pillar while handling loaded car.
May	23	Angelo Massi, ...	Italian, ...	Miner, ...	36	M.	Eleanora No. 2, ...	Jefferson,.......	Leg broken by fall of slate at face of room while shoveling coal.
		Tony Carbona, ...	Italian, ...	Miner, ...	26	S.	Eleanora No. 2, ...	Jefferson,.......	Leg broken by fall of slate at face of room while cleaning slate bands from coal.
	29	Andrew Gudities, ...	Slavonian,..	Machine runner,..	22	M.	Dixon No. 1, ...	Indiana, ...	Leg broken while handling loaded cars on heading.
June	4	Angelo Scarlash, ...	Italian, ...	Miner, ...	60	M.	Florence No. 1, ...	Jefferson,.......	Leg broken while lifting car on track near face of room.
	11	Richard Nichols, ...	American, ..	Mine foreman, ...	36	M.	Dixon No. 1, ...	Indiana, ...	Ribs fractured by fall of slate at face of room while setting up sights.
	18	Peter Connacher, ...	American, ..	Blacksmith, ...	63	M.	Barr, ...	Indiana, ...	Two ribs broken while unloading mine cars. Outside.
	30	George Dillon, ...	American, ..	Miner, ...	41	M.	Arcadia No. 44, ...	Indiana, ...	Leg and wrists bruised by fall of roof at face of heading while shoveling coal.
		William Hamilton, ...	American,...	Miner, ...	36	S.	Arcadia No. 44, ...	Indiana, ...	Arm and shoulder bruised by fall of roof while working at face of heading.

June	30	John Chucken, ...	Slavonian, .	Company man, ...	48	M.	Indiana No. 6, ...	Indiana, ...	Two ribs fractured. Caught between trip of cars and timbers on main heading while handling cars.
July	30	Tony Galat, ...	Italian, ...	Miner, ...	27	S.	Hamilton, ...	Indiana, ...	Collar bone broken by fall of slate at face of room while shoveling coal.
Aug.	14	Tony Chica, ...	Polish, ...	Miner, ...	24	M.	Victor No. 14, ...	Indiana, ...	Leg broken by fall of coal while working at face of heading.
Sept.	8	Frank Leona, ...	Italian, ...	Miner, ...	40	M.	Soldier No. 2, ...	Jefferson, ...	Leg broken by fall of roof at face of room while setting prop.
	8	Thomas Uagi, ...	Horwat, ...	Miner, ...	24	S.	Sykesville Shaft, ...	Jefferson, ...	Leg broken by being caught between empty cars on heading.
	25	Andrew Kooyon, ...	Polish, ...	Machine runner, ..	28	M.	Canoe Ridge No. 3, ...	Indiana, ...	Finger cut off. Caught in broken sheave wheel of mining machine while cutting at face of room.
	27	Emil Snyder, ...	Slavonian, ..	Blacksmith, ...	40	M.	Indiana No. 6, ...	Indiana, ...	Leg broken by being caught between loaded cars that jumped the track while he was putting on the brakes. Outside.
Oct.	7	W. E. White, ...	American, ..	Runner, ...	24	S.	Eleanora Shaft, ...	Jefferson, ...	Three ribs fractured and leg broken by falling under trip of empty cars while they were in motion on main heading.
	25	Alexander Kish, ...	Hungarian, .	Miner, ...	33	M.	Helvetia-Stanley, ...	Clearfield, ...	Chest cut and shoulder dislocated. Run over by loaded car while handling cars on heading.
	28	Felice Jerra, ...	Italian, ...	Miner, ...	32	S.	Dayton No. 1, ...	Armstrong, ...	Leg broken by fall of coal at face of room while shoveling coal.
	29	Jacob Radto, ...	Polish, ...	Miner, ...	28	S.	Eleanora No. 2, ...	Jefferson, ...	Leg broken by fall of coal at face of heading while taking down loose coal.
Nov.	22	Samuel Korkilli, ...	Polish, ...	Miner, ...	47	M.	Helvetia-Stanley, ...	Clearfield, ...	Leg broken by an empty car that jumped the track near face of heading.
	28	J. H. Moore, ...	American, ..	Driver, ...	38	M.	Arcadia No. 44, ...	Indiana, ...	Back injured and sprained while setting brake on car. Outside.
	29	John Rawpoots, ...	Polish, ...	Miner, ...	34	M.	Helvetia-Stanley, ...	Clearfield, ...	Both collar bones broken by fall of coal at face of pillar while undermining.
Dec.	2	Andrew Enchura, ...	Slavonian, ..	Miner, ...	29	M.	Arcadia No. 44, ...	Indiana, ...	Foot crushed by fall of slate at face of room while shoveling coal.
	5	Lonnie Swabah, ...	Horwat, ...	Scraper, ...	30	S.	Victor No. 11, ...	Indiana, ...	Leg broken by a pinch bar at face of room while trying to bar a mining machine when it was in motion.
	6	Steve Leont, ...	Italian, ...	Miner, ...	35	M.	Frances, ...	Indiana, ...	Two ribs broken by being caught between empty cars on heading while handling them.
	20	Andy Watrel, ...	Slavonian, ..	Miner, ...	23	M.	Electric No. 7, ...	Indiana, ...	Shoulder bone broken by fall of coal at face of room while undermining.

CONDITION OF MINES

ROCHESTER AND PITTSBURGH COAL AND IRON COMPANY

Eleanora No. 2.—Ventilation in good condition. Drainage good, with some minor exceptions.

Eleanora No. 3.—Ventilation good. Drainage good, except in second left section.

Eleanora Shaft.—Ventilation and drainage in good condition.

Adrian No. 1.—Ventilation was in reasonably good condition in all sections. Drainage was good, with some exceptions on the main haulage roads.

Florence No. 1.—Ventilation and drainage good.

Florence No. 2.—Ventilation was in reasonably fair condition, except at the face of first south. Drainage good.

Walston No. 3. Ventilation and drainage in fair condition.

Elk Run Shaft.—Idle during the year, except as a pumping station.

Helvetia-Stanley.—Ventilation and drainage in reasonably good condition in all sections.

CLEARFIELD BITUMINOUS COAL CORPORATION

Canoe Ridge No. 1.——Ventilation good. Drainage is good, with a few exceptions on the traveling-way.

Canoe Ridge No. 3.—Ventilation and drainage in good condition.

Canoe Ridge No. 4.—Ventilation and drainage good.

Barr.—Ventilation and drainage excellent.

JEFFERSON AND CLEARFIELD COAL AND IRON COMPANY

Soldier Nos. 1 and 2.—Ventilation and drainage in reasonably fair condition.

Soldier No. 3.—Ventilation and drainage good.

Soldier No. 5.—Ventilation in good condition. Drainage fair, with some minor exceptions.

PENNSYLVANIA COAL AND COKE CORPORATION

Arcadia No. 40.—Ventilation and drainage good.

Arcadia No. 41.—Ventilation and drainage good.

Arcadia No. 42.—Idle during the year.

Arcadia No. 43.—Ventilation, drainage and other conditions good in all sections.

Arcadia No. 44.—Ventilation fair. Drainage fair, with some exceptions on the haulage roads.

CASCADE COAL AND COKE COMPANY

Sykesville Shaft.—Ventilation and drainage excellent.

ELLSWORTH-DUNHAM COAL COMPANY

Victor Nos. 11 and 14.—Ventilation and drainage in reasonably good condition in all sections.

PUNXSUTAWNEY COAL MINING COMPANY

Frances.—Ventilation in good condition. Drainage fair.

JOHN McLEAVY AND COMPANY

Sholler.—Ventilation and drainage good.

Conrad.—Ventilation fair. Drainage fair, with some minor exceptions.

DAYTON COAL COMPANY

Dayton No. 1.—Ventilation and drainage good.

Dayton No. 2.—Ventilation in fair condition. Drainage was good in some parts and in other parts only fair.

DIXON COAL COMPANY

Dixon No. 1.—Ventilation in reasonably good condition. Drainage in fair condition, with some exceptions on the fourth right heading.

HILLSDALE COAL AND COKE COMPANY

Hillsdale Nos. 3 and 4.—Ventilation and drainage in fair condition.

BOWERSVILLE COAL COMPANY

Bowersville.—Ventilation good. Drainage fair.

UREY RIDGE COAL COMPANY

Urey Nos. 1 and 5.—Ventilation was good in some parts and in other parts only fair. In some parts of No. 1 mine the roads were wet and muddy.

Urey Nos. 3 and 6.—Idle during the year.

SUMMIT COAL MINING COMPANY

Summit No. 1.—Ventilation and drainage good.

Summit No. 2.—Ventilation good. Drainage fair.

RUSSELL COAL COMPANY

Victor No. 27.—Ventilation and drainage good.

GLENWOOD COAL COMPANY

Glenwood Nos. 6½ and 12.—Ventilation and drainage in fair condition.

Glenwood No. 9½ and Winkey.—Idle during the year.

BEAR RUN COAL AND COKE COMPANY

Bear Run Nos. 1 and 2.—Ventilation and drainage good. No. 1 mine idle during the year.

CHESTNUT RIDGE COAL COMPANY

Indiana No. 6.—Ventilation was fair in some parts, but in other parts it was not sufficient to maintain a proper condition of sanitation. Drainage fair, with some minor exceptions.

SUTTER COAL COMPANY

Valier.—Ventilation in fair condition. Drainage only fair. In some parts the roads were well drained and in other parts wet and muddy.

INDIANA COAL COMPANY

Indiana No. 1.—Ventilation and drainage in fair condition.
Indiana No. 5.—Ventilation fair. Drainage good.
Indiana Nos. 1½, 3, 4, 7 and 8. Idle during the year.

DIXONVILLE COAL COMPANY

Randolph No. 2.—Ventilation and drainage good.

SUPERIOR COAL MINING COMPANY

Superior No. 1.—Ventilation and drainage good.

CORTEZ COAL COMPANY

Cortez Nos. 1 and 2.—Ventilation fair. Drainage in fair condition, with some exceptions on the haulage roads.

MADEIRA-HILL COAL MINING COMPANY

Clover Run Nos. 2, 4 and 6.—Ventilation fair. Drainage was good in some parts and in other parts only fair.
Clover Run No. 1.—Idle during the year.

ELECTRIC COAL COMPANY

Electric No. 7.—Ventilation good, except at the face of a few rooms. Drainage in fair condition.

LINDSEY COAL MINING COMPANY

Lindsey No. 5.—Ventilation and drainage good.
Lindsey No. 8.—Ventilation and drainage good.

HAMILTON COAL MINING COMPANY

Hamilton.—In good condition as to ventilation and drainage.

CLARK BROTHERS COAL MINING COMPANY

Falcon Nos. 5½ and 7.—Ventilation fair. Drainage satisfactory.
Falcon Nos. 5, 6 and 8.—Idle during the year.

HUDSON COAL MINING COMPANY

Hudson.—Ventilation and drainage in a satisfactory condition.

IMPROVEMENTS

ROCHESTER AND PITTSBURGH COAL AND IRON COMPANY

Eleanora No. 2.—Built 39 stone stoppings and one overcast. Built mine foreman's office and machine shop inside, using brick and steel in the construction of them. Cleaned airway leading from fan shaft into interior of mine and placed radiators at top of stairway compartment of shaft. Improvements were made on the outside as follows: Erected iron and concrete bridge, 6 by 28 foot span, from street car station to mine and store, making ash walk between these points. Installed fire plugs in the following places: Two 2 inch plugs for tipple and boiler house, five 2 inch plugs at various points in the town of Eleanora, and one 2 inch plug for the McKees Run boiler plant. Erected pump room, 10 by 12 by 10 feet, for town water supply, equipped with Yough pump, 14 by 17 by 18 inches. Erected brick building, 12 by 12 by 20 feet, for foundry and casting purposes; also erected brick building, 6 by 8 by 8 feet, for storing naptha.

Eleanora Shaft.—Built 40 stone stoppings and 3 overcasts. Cleaned airways for a considerable distance in left side of mine. Large pump room at bottom of shaft under reconstruction is partly completed and will be arched and finished with brick and cement. Installed one 300 K. W. generator driven by a Harrisburg engine, 24 by 24 inches. Installed one 2 inch fire plug for boiler house.

Adrian No. 1.—Built 59 stone stoppings and provided 19 additional shelter holes on main haulage road. Installed one Deming horizontal double acting pump, with General Electric self starting motor, also two Aldrich triplex horizontal pumps, 4 by 5 inches, equipped with electric self starting motor. Built five brick rooms of suitable size for the tools and supplies of the fire bosses, trackmen, timbermen, wiremen and pipemen. All inside buildings were made fire proof. The emergency hospital room is fully equipped with appliances and supplies for rendering first aid to the injured.

Florence No. 1.—Built 20 stone stoppings and one fire proof repair shop for pipemen.

Florence No. 2.—Built 15 stone stoppings. Enlarged and concreted motor barn.

Elk Run Shaft.—Installed one steam Yough pump, 24 by 15 by 36 inches.

Helvetia-Stanley.—All timber and combustible material have been removed from around the steam pumps and considerable masonry work has been done by building stone retaining walls, with heavy No. 80 steel rails on top to support the roof and sides and to isolate the coal seams that have heretofore been exposed. At the electric pump room the wood work supporting the breaker and starting boxes have been taken out, and these instruments are now supported on angle iron, thus eliminating any danger of fire from combustible material. All stoppings are being built of stone and masonry, and one overcast has been built of brick and concrete. Along the main Helvetia slope between five and six hundred posts have been set, ranging to 12 inches in diameter, to support the bad roof; considerable timbering also has been done in the fourth right heading. The purpose of the retimbering was to give the proper clearance on the side of the cars and make it safer for persons handling trips on these headings.

CLEARFIELD BITUMINOUS COAL CORPORATION

Canoe Ridge No. 1.—Built 80 concrete stoppings, 64 stone stoppings and one concrete overcast.

Canoe Ridge No. 3.—Built 84 concrete stoppings and two overcasts.

Canoe Ridge No. 4.—Built 58 concrete stoppings and cleaned up airways in general. Seven Goodman shortwall electric mining machines have been added to the equipment.

Barr.—Installed electric plant, consisting of one Fortwane generator, 100 K. W., driven by a McEwen engine, 210 H. P. Erected one 150 H. P. Erie boiler. Installed two Goodman shortwall electric mining machines and two Harris electric pumps. Installed a link chain hoist driven by a 10 H. P. stationery motor, at the tipple to handle the empty cars. Erected brick boiler house, 48 by 70 feet, and blacksmith shop and car shop combined, 24 by 60 feet.

CASCADE COAL AND COKE COMPANY

Sykesville Shaft.—Built 200 rectangular coke ovens, machine drawn, with railroad tracks and steel trestle to slack bin. Built a 200,000 gallon capacity concrete reservoir. Installed two 300 H. P. Cahall boilers; and two 375 KVA Ridgeway Turbo generators, low pressure A. C. 2,300 volts, housed in new brick structure, 40 by 80 feet. Built new brick sub-station, 20 by 30 feet, and installed one 500 KVA Synchronous motor generator set, reducing the alternating current to direct current of 275 volts for mine use. The station is located at No. 2 air shaft.

Seven electric locomotives have been added to the inside equipment and six new side tracks have been built to handle the additional tonnage required for the new ovens.

PUNXSUTAWNEY COAL MINING COMPANY

Frances.—Built 30 stone stoppings and installed two automatic trap doors.

DAYTON COAL COMPANY

Dayton No. 1.—Installed two No. 10 Cameron pumps. Sank an air shaft 45 feet deep and moved fan from its former location to this shaft, thereby making inlet closer to the workings and improving the ventilation in general throughout the mine.

Dayton No. 2.—Installed electric haulage system and connected fan with 10 H. P. General Electric motor. Erected new tipple with modern improvements. Built stone stoppings in all headings throughout the mine.

BOWERSVILLE COAL COMPANY

Bowersville.—Two 150 H. P. Tubular boilers were added to the power plant. Installed new haulage engine, 100 H. P., and added a new Sullivan air compressor to the equipment. Erected new frame boiler house and new engine house. Erected two double houses for employes.

SUMMIT COAL MINING COMPANY

Summit No. 2.—Built stone stoppings throughout all headings. Installed Deming electric pump, 4 by 5 inches, and one Yough steam pump.

PROSECUTIONS FOR VIOLATION OF THE MINING LAWS

February 12. John Jacob, miner Eleanora Shaft mine, Rochester and Pittsburgh Coal and Iron Company. Charge: Taking smokers' articles into mine worked with locked safety lamps. Plead guilty April 15. Sentenced to pay fine of $25.00 and costs.

February 13, Martin Meschavich, miner, Eleanora Shaft mine, Rochester and Pittsburgh Coal and Iron Company, Charge: Taking smokers' articles into mine worked with locked safety lamps. Plead guilty April 15. Sentenced to pay fine of $25.00 and costs.

March 20, Steve Asanis, miner, Penn Mary No. 2 mine, Penn Mary Coal Company. Charge: Neglecting to sprag coal while undermining. Plead guilty and paid all costs.

March 20, Mike Wasdeski, miner, Penn Mary No. 2 mine, Penn Mary Coal Company. Charge: Neglecting to set props for his own safety. Plead guilty and paid all costs.

March 20, Milo Cabesh, miner, Penn Mary No. 3 mine, Penn Mary Coal Company. Charge: Neglecting to set props for his own safety. Plead guilty and paid all costs.

March 20, Frank Bulando, miner, Penn Mary No. 3 mine, Penn Mary Coal Company. Charge: Failure to properly set sprags while undermining. Plead guilty and paid all costs.

March 20, Augustine Park, miner, Penn Mary No. 3 mine, Penn Mary Coal Company. Charge: Neglecting to sprag coal while undermining. Plead guilty and paid all costs.

March 20, Wash Julisko, miner, Penn Mary No. 5 mine, Penn Mary Coal Company. Charge: Neglecting to set props for his own safety. Plead guilty and paid all costs.

March 20, James Bruno, miner, Penn Mary No. 5 mine, Penn Mary Coal Company. Charge: Failure to sprag coal while undermining. Plead guilty and paid all costs.

July 28, John Doctor, miner, Eleanora No. 2 mine, Rochester and Pittsburgh Coal and Iron Company. Charge: Injured safety lamp carelessly and intentionally in a section of the mine worked with locked safety lamps. Plead guilty August 12. Sentenced to pay fine of $25.00 and costs.

July 28, Tony Majka, miner, Eleanora No. 2 mine, Rochester and Pittsburgh Coal and Iron Company. Charge: Injured safety lamp carelessly and intentionally in a section of the mine worked with locked safety lamps. Plead guilty August 12. Sentenced to pay fine of $25.00 and costs.

July 28, Tony Michael, miner, Eleanora No. 2 mine, Rochester and Pittsburgh Coal and Iron Company. Charge: Tampering with and trying to open a locked safety lamp in a gaseous section of the mine. Warrant issued, but defendant so far has avoided arrest.

August 2, Phillip Riwggi, miner, Adrian No. 1 mine, Rochester and Pittsburgh Coal and Iron Company. Charge: Handling powder with open light on his head. Plead guilty and paid all costs.

September 12, Peter Lorenza, miner, Adrian No. 1 mine, Rochester and Pittsburgh Coal and Iron Company. Charge: Passed a danger signal. Plead guilty and paid all costs.

November 18, Mike Mikulyak, miner, Adrian No. 1 mine, Rochester and Pittsburgh Coal and Iron Company. Charge: Handling powder with open light on his head. Plead guilty and paid all costs.

November 26, Peter Cowley, miner, Sykesville Shaft mine, Cascade Coal and Coke Company. Charge: Passed a danger signal. Entered plea of guilty and paid all costs.

November 26, John Cowley, miner, Sykesville Shaft mine, Cascade Coal and Coke Company. Charge: Passed danger signal. Plead guilty and paid all costs.

November 26, Louie Colang, miner, Sykesville Shaft mine, Cascade Coal and Coke Company. Charge: Leaving working place and wandering about the mine without permission from the mine foreman. Plead guilty and paid all costs.

MINE FOREMEN'S, ASSISTANT MINE FOREMEN'S AND FIRE BOSSES' EXAMINATIONS

The annual examination of applicants for certificates of qualification as mine foremen, assistant mine foremen and fire bosses was held in the Spirit Building, Punxsutawney, May 6, 7 and 8. The Board of Examiners was composed of Thomas A. Furniss, Inspector; A. W. Calloway, Superintendent.

There were 52 applicants for certificates of qualification as mine foremen and 32 applicants for certificates of qualification as fire bosses. The following persons passed a satisfactory examination and were granted certificates:

MINE FOREMEN

First Grade

Matthew Blair, Anita; Ray Roland Null, Sykesville; James Neilson, Eleanora; James Callahan, DeLancey; William H. Maloney, Punxsutawney; Martin Maloney, Rossiter.

Second Grade

Albert J. Stoker, Love Joy; Thomas E. Engle, Archibald W. Donaldson, Heilwood; Gustave Sunberg, James Waddell, Dixonville; Edward Carlson, Punxsutawney; Andrew R. Watson, Clymer; Henry H. Pennington, Glen Campbell; William Murray, Eleanora.

ASSISTANT MINE FOREMEN

John May, James Riddles, Sykesville; Halver T. Halverson, Archibald W. Donaldson, Heilwood; James St. Clair, Clymer; George Cole, Hugh Edmondson, Punxsutawney; David Neilson, Anita; George Facemyer, Dennis G. White, Eleanora.

FIRE BOSSES

Peter W. Dixon, Sykesville; James St. Clair, David Troup, John O'Hara, Clymer; Wilbert E. White, James Morran, Owen J. Flannagan, James J. Madden, Eleanora; Charles B. Nolf, Alexander Danielson, Anita; Edward L. Gagen, Florenza; Joseph E. Gorman, George Cole, Punxsutawney.

THIRTEENTH DISTRICT

ALLEGHENY, WASHINGTON AND WESTMORELAND COUNTIES

Elizabeth, Pa., February 16, 1914.

Hon. James E. Roderick, Chief of Department of Mines:

Sir: I have the honor to transmit herewith my annual report as Inspector of Mines of the Thirteenth Bituminous District, for the year ending December 31, 1913.

It contains the customary tables and statistics, a brief description of the condition of the mines, the improvements made during the year, and an account of the annual examination of candidates for certificates of qualification as mine foremen, assistant mine foremen and fire bosses; also an account of the legal prosecutions.

Respectfully submitted,

WILLIAM LANGAN, Inspector.

SUMMARY OF STATISTICS

Number of mines,	16
Number of mines in operation,	16
Number of tons of coal shipped to market,	4,238,984
Number of tons used at mines for steam and heat,	68,303
Number of tons sold to local trade and used by employes,	51,602
Number of tons used in the manufacture of coke,	....
Number of tons of coal produced,	4,358,889
Number of tons of coke produced,	....
Number of coke ovens,	....
Number of coke ovens in operation,	....
Number of tons of coal produced by pick mining,	867,218
Number of tons produced by compressed air machines,	....
Number of tons produced by electrical machines,	3,491,671
Number of persons employed inside of mines,	4,114
Number of persons employed outside, including coke workers,	523
Number of persons employed at manufacture of coke,	....
Number of fatal accidents inside of mines,	10
Number of fatal accidents outside,	3
Number of non-fatal accidents inside of mines,	26
Number of non-fatal accidents outside,	3
Number of tons of coal produced per fatal accident inside,	435,889
Number of tons produced per fatal accident outside,	1,452,963
Number of tons produced per fatal accident inside and outside,	335,299
Number of persons employed per fatal accident inside,	411
Number of persons employed per fatal accident outside,	174
Number of persons employed per fatal accident inside and outside,	357
Number of persons employed per non- fatal accident inside,	158
Number of persons employed per non-fatal accident outside,	174
Number of persons employed per non-fatal accident inside and outside,	160
Number of wives made widows,	7
Number of children made orphans,	16
Number of steam locomotives used inside of mines,	....
Number of steam locomotives used outside,	3
Number of compressed air locomotives used inside,	....
Number of compressed air locomotives used outside,	....
Number of electric motors used inside,	46
Number of electric motors used outside,	1
Number of gasoline locomotives used inside,	....
Number of fans in use,	19
Number of furnaces in use,	1
Number of gaseous mines in operation,	14
Number of non-gaseous mines in operation,	2
Number of new mines opened,	1
Number of old mines abandoned,	....

TABLE A

PRODUCTION OF COAL

Names of Operators

	Tons
Monongahela River Consolidated Coal and Coke Company,	2,290,468
United Coal Company (James D. O'Neil, Thurston Wright, Robert P. Watt, William K. Johnson, Receivers), ...	677,192
Diamond Coal and Coke Company, ...	523,899
Blaine Coal Company, ...	506,269
Pittsburgh Coal Company, ...	228,539
George W. Gumbert, ...	75,539
Joseph L. Pearce, ...	42,113
B. S. Hammill Coal Company, ...	14,870
Total, ...	4,358,889

Production by Counties

Allegheny, ...	3,610,893
Washington, ...	705,883
Westmoreland, ...	42,113
Total, ...	4,358,889

TABLE B.—Fatal and non-fatal accidents inside and outside of mines; number of tons of coal produced per accident; number of persons employed; number employed per accident

Names of Operators	Fatal Accidents			Non-Fatal Accidents			Tons of coal produced per fatal accident inside	Tons of coal produced per non-fatal accident inside	Number of employes inside	Number of employes outside	Total number of employes	Number of employes inside per fatal accident	Number of employes outside per fatal accident	Number of employes inside per non-fatal accident	Number of employes outside per non-fatal accident
	Inside	Outside	Total	Inside	Outside	Total									
Monongahela River Consolidated Coal and Coke Co.,	8	2	10	13	2	15	286,309	176,190	2,280	298	2,528	279	149	172	149
United Coal Co.,	......	1	1	6	......	6	....	112,865	557	69	626	....	69	93	....
Blaine Coal Co.,	1	......	1	4	......	4	506,269	126,567	521	52	573	521	....	130	....
Pittsburgh Coal Co.,	1	......	1	1	1	2	228,539	228,539	221	35	256	221	....	221	35
George W. Gumbert,	......	......	......	2	......	2	....	37,769	105	15	120	....	....	52	....
Miscellaneous Companies,	......	......	......	......	......	......	....	....	480	54	534	....	....	....	....
Totals and averages for district,	10	3	13	26	3	29	435,889	167,650	4,114	523	4,637	411	174	158	174

TABLE C.—Classification of Fatal Accidents Inside and Outside of Mines

	Months													
	January	February	March	April	May	June	July	August	September	October	November	December	Totals	Percentages
Causes of Accidents Inside														
Falls of coal, ...	....	2	1	....	....	....	....	....	....	....	....	....	3	30.00
Falls of slate, ...	....	....	....	....	....	1	....	1	1	....	....	....	3	30.00
Falls of roof, ...	....	....	1	....	....	....	....	....	....	....	....	....	1	10.00
Mine cars, ...	1	....	....	1	....	....	....	....	1	....	....	....	3	30.00
Totals, ...	1	2	2	1	....	1	....	1	2	....	....	....	10	100.00
Causes of Accidents Outside														
Cars, ...	....	....	....	1	....	....	....	....	....	....	....	....	1	33.34
Struck by rope, ...	....	....	....	1	....	....	....	....	....	....	....	....	1	33.33
Drowned in river, ...	....	....	....	....	....	....	....	....	....	1	....	....	1	33.33
Totals, ...	....	....	....	2	....	....	....	....	....	1	....	....	3	100.00
Grand totals inside and outside, ...	1	2	2	3	....	1	....	1	2	1	....	....	13	......

TABLE D.—Classification of Non-Fatal Accidents Inside and Outside of Mines

	Months													
	January	February	March	April	May	June	July	August	September	October	November	December	Totals	Percentages
Causes of Accidents Inside														
Falls of coal, ...	1	....	....	1	....	....	....	1	....	1	....	....	4	15.38
Falls of slate, ...	1	1	....	....	....	1	1	2	....	1	1	2	10	38.46
Falls of roof, ...	....	1	....	....	....	....	....	1	....	2	....	1	5	19.23
Mine cars, ...	....	....	....	....	1	....	1	....	1	1	....	2	6	23.08
Struck by post, ...	....	....	....	....	....	....	....	....	....	1	....	....	1	3.85
Totals, ...	2	2	....	1	1	1	2	4	1	6	1	5	26	100.00
Causes of Accidents Outside														
Falling of river tipple,	....	....	....	....	1	....	....	....	....	....	....	....	1	33.34
Explosion of dust, ...	....	....	....	....	1	....	....	....	....	....	....	....	1	33.33
Falling from tipple into car, ...	....	....	....	....	....	....	....	....	....	....	1	....	1	33.33
Totals, ...	....	....	....	....	2	....	....	....	....	....	1	....	3	100.00
Grand totals inside and outside, ...	2	2	....	1	3	1	2	4	1	6	2	5	29	......

TABLE E.—Occupations of Persons Killed or Fatally Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
Inside													
Mine foremen,	....	....	....	1	....	....	....	....	....	....	....	....	1
Machine loaders,	....	2	....	....	....	1	....	1	1	....	....	....	5
Machine scrapers,	....	....	1	....	....	....	....	....	....	....	....	....	1
Drivers and runners,	1	....	....	....	....	....	....	....	....	....	....	....	1
Trip riders,	....	....	....	....	....	....	....	....	1	....	....	....	1
Laborers,	....	....	1	....	....	....	....	....	....	....	....	....	1
Totals,	1	2	2	1	....	1	....	1	2	....	....	....	10
Outside													
Roadmen,	....	....	....	1	....	....	....	....	....	....	....	....	1
Car cleaners,	....	....	....	1	....	....	....	....	....	....	....	....	1
Pumpers,	....	....	....	....	....	....	....	....	....	1	....	....	1
Totals,	....	....	....	2	....	....	....	....	....	1	....	....	3
Grand totals inside and outside,	1	2	2	3	....	1	....	1	2	1	....	....	13

TABLE F.—Occupations of Persons Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
Inside													
Miners,	2	....	....	....	....	1	....	2	....	....	....	....	5
Machine runners,	....	....	....	....	....	....	....	....	....	1	....	1	2
Machine loaders,	....	2	....	1	....	....	2	2	....	5	1	3	16
Drivers and runners,	....	....	....	....	1	....	....	....	1	....	....	1	3
Totals,	2	2	....	1	1	1	2	4	1	6	1	5	26
Outside													
Greasers,	....	....	....	....	1	....	....	....	....	....	....	....	1
Car pushers,	....	....	....	....	1	....	....	....	....	....	....	....	1
Checkweighmen,	....	....	....	....	....	....	....	....	....	....	1	....	1
Totals,	....	....	....	....	2	....	....	....	....	....	1	....	3
Grand totals inside and outside,	2	2	....	1	3	1	2	4	1	6	2	5	29

TABLE G.—Nationality of Persons Killed or Fatally Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
American,	1	....	....	2	....	....	....	....	1	1	....	....	5
Polish,	....	2	....	....	....	....	....	....	....	....	....	....	2
Italian,	....	....	2	....	....	....	....	....	1	....	....	....	3
Slavonian,	....	....	....	1	....	....	....	....	....	....	....	....	1
Russian,	....	....	....	....	....	1	....	1	....	....	....	....	2
Totals,	1	2	2	3	....	1	....	1	2	1	....	....	13

TABLE H.—Nationality of Persons Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
American,	....	....	....	....	2	....	....	1	....	1	1	1	6
English	....	1	....	....	....	1	....	....	....	....	1	....	3
Welsh,	....	....	....	....	....	....	....	....	....	1	....	....	1
Polish,	....	....	....	....	....	....	1	....	....	1	....	....	2
Hungarian,	....	....	....	....	....	....	....	....	....	1	....	....	1
Italian,	....	....	....	1	1	....	....	....	....	1	....	2	5
Slavonian,	2	....	....	....	....	....	....	2	....	1	....	2	7
Lithuanian,	....	....	....	....	....	....	1	....	1	....	....	....	2
Austrian,	....	1	....	....	....	....	....	....	....	....	....	....	1
Servian,	....	....	....	....	....	....	....	1	....	....	....	....	1
Totals,	2	2	....	1	3	1	2	4	1	6	2	5	29

TABLE I.—Operators and mines, kind of openings, type and size of fans, size of furnaces, volume of air produced by fan or furnace per minute, number of splits of air currents and number of persons employed inside

Names of Operators and Mines	Kind of opening	Gaseous or non-gaseous	Method of ventilation	Diameter of fan in feet and inches	Width of blades in feet and inches	Depth of blades in feet and inches	Number of revolutions per minute	Water gauge developed—in inches	Name of fan	Power used	Area of furnace bars in square feet	Number of splits of air currents	Number of cubic feet of air per minute entering the mine at inlet	Total number of cubic feet of air per minute circulating in all the splits	Number of cubic feet of air per minute passing out at outlet	Number of persons employed inside
Monongahela River Consolidated Coal and Coke Co.																
Bunola, ...	Drift, ...	Gaseous, ..	Fan, ...	16.0	6.0	4.0	86	1.3	Monongahela Mfg. Company, ...	Steam, ...		6	99,160	61,560	158,200	348
				8.0	1.5	3.75	388	.5	Stine, ...	Electricity, .						
				8.0	1.5	3.75	388	.6	Stine, ...	Electricity, .						
Coal Bluff, ...	Drift, ...	Gaseous, ..	Fan, ...	9.0	3.5	2.3	240	.9	Capell, ...	Electricity, .	..	5	†	39,810	59,800	189
Gallatin, ...	Drift, ...	Gaseous, ..	Fan, ...	13.5	5.6	4.6	167	2.7	Capell, ...	Steam, ...	..	7	93,680	60,615	104,400	328
Lovedale, ...	Slope, ...	Gaseous, ..	Fan, ...	16.0	6.5	4.0	108	2.	Capell, ...	Steam, ...	..	5	94,660	55,680	150,000	286
Mongah, ...	Drift, ...	Gaseous, ..	Fan, ...	20.0	6.0	6.0	80	1.8	Pollock, ...	Steam, ...	..	4	74,820	46,800	82,800	289
Risher, ...	Drift, ...	Non-gas., .	Fan, ...	20.0	6.5	6.2	43	.6	Pollock, ...	Steam, ...		4	†	36,200	67,000	216
				8.0	2.5	2.4	330	1.2	Stine, ...	Electricity, .						
Sunnyside,*	Drift, ...	Gaseous, ..	....	......	......	......	......	......	....	....	..	6	86,600	67,105	100,800	309
Walton No. 2, ...	Drift, ...	Gaseous, ..	Fan, ...	20.0	6.7	6.6	82	1.8	Pollock, ...	Steam, ...		6	130,300	59,840	†	265
				8.0	1.5	3.75	250	.5	Stine, ...	Electricity, .						
United Coal Co.																
Ella, ...	Drift, ...	Gaseous, ..	Fan, ...	20.0	6.0	6.0	108	4.	Lepley, ...	Steam, ...	..	6	119,700	50,100	151,000	266
Patterson No. 2, ...	Slope, ...	Gaseous, ..	Fan, ...	16.0	6.5	5.0	140	3.6	Robinson, ...	Electricity, .		7	97,550	80,390	131,000	291
				8.0	1.5	3.75	420	.6	Stine, ...	Electricity, .						
Diamond Coal and Coke Co.																
Huston Run, ...	Slope, ...	Gaseous, ..	Fan, ...	16.0	7.2	4.2	96	1.8	Lepley, ...	Steam, ...	..	8	106,000	88,360	112,000	374

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*Ventilated by fan at Gallatin mine.
†Measurements taken at the ventilator.

Blaine Coal Co. Blaine	Drift, ...	Gaseous, ..	Fan, ...	15.0	5.5	5.0	150	8.3	{ Clifford, ... { Capell, ...	} Steam,....	..	14	177,680	121,155	193,800	521
Pittsburgh Coal Co. Mancwn, ...	Drift, ...	Gaseous, ..	Fan, ...	16.0	4.6	5.0	140	4.5	Jeffrey, ...	Steam,......	..	3	68,800	46,740	79,200	221
George W. Gumbert Camden, ...	Drift, ...	Non-gas., .	Furnace,..						....	....	48	2	28,000	22,400	33,400	105
Joseph L. Pearce Budd, ...	Drift, ...	Gaseous, ..	Fan, ...	20.0	6.0	5.0	34	.2	Robinson, ...	Steam,......	..	1	13,000	10,000	15,000	54
B. S. Hammill Coal Co. Hammill, ...	Drift, ...	Gaseous, ..	Fan, ...	6.0	1.5	2.5	325	.4	American Blower,	Electricity,.	..	1	28,800	12,000	30,000	52

TABLE J.—Mines using coal cutting machines, power used, geological and local names of seams, thickest and thinnest seams where machines are used, and the approximate number of tons produced by machines

Names of Operators	Names of Mines	Kind of opening	Gaseous or non-gaseous	Number of mining machines used	Power used by machines	Geological and local names of seams	Average thickness in inches	Height of Seam in Inches		Approximate number of tons produced by machines
								Thickest	Thinnest	
Monongahela River Consolidated Coal and Coke Co.,	Bunola,	Drift,	Gaseous,	13	Electricity,	Pittsburgh,	66	72	60	323,235
	Coal Bluff,	Drift,	Gaseous,	9			66	74	58	136,888
	Gallatin,	Drift,	Gaseous,	14			67	72	62	276,704
	Lovedale,	Slope,	Gaseous,	11			66	72	60	274,976
	Mongah,	Drift,	Gaseous,	11			68	74	62	104,395
	Risher,	Drift,	Non-gas.,	9			66	72	60	234,685
	Sunnyside,	Drift,	Gaseous,	15			66	72	60	267,835
	Walton No. 2,	Drift,	Gaseous,	9			66	72	60	195,102
Totals,				91						1,813,820
United Coal Co.,	Ella,	Drift,	Gaseous,	8	Electricity,	Pittsburgh,	69	72	66	234,490
	Patterson No. 2,	Slope,	Gaseous,	15			66	72	60	331,136
Totals,				23						565,626
Diamond Coal and Coke Co.,	Huston Run,	Slope,	Gaseous,	8	Electricity,	Pittsburgh,	68	72	64	444,038
Blaine Coal Co.,	Blaine,	Drift,	Gaseous,	14	Electricity,	Pittsburgh,	66	72	60	430,281
Pittsburgh Coal Co.,	Manown,	Drift,	Gaseous,	9	Electricity,	Pittsburgh,	59	66	52	184,500

George W. Gumbert,	Camden,	Drift,	Non-gas.,	5	Electricity,	Pittsburgh,	63	66	60	38,536
B. S. Hammill Coal Co.,	Hammill,	Drift,	Gaseous,	2	Electricity,	Pittsburgh,	65	70	60	14,870
Grand totals,				152						3,491,671

TABLE 1.—Operators, Location of Mines, Railroads, etc.

Names of Operators and Mines	County	Name of General Superintendent	Post Office	Name of Superintendent	Post Office	Railroad to Mine
Monongahela River Consolidated Coal and Coke Co.						
Bunola,	Allegheny,	George W. Schluederberg,	Pittsburgh,	Bernard Burns,	Monongahela,	M. D. of P. and L. E.
Coal Bluff,	Washington,			William Carter,	Hackett,	M. D. of Pennsylvania
Gallatin,	Allegheny,			F. J. Couninhan,	Gallatin,	M. D. of P. and L. E.
Lovedale,	Allegheny,			Peter Crockett,	Elizabeth,	M. D. of P. and L. E.
Mongah,	Allegheny,			Bernard Burns,	Monongahela,	M. D. of P. and L. E.
Risher,	Allegheny,			William Black,	Dravosburg,	Union
Sunnyside,	Allegheny,			F. J. Couninhan,	Gallatin,	M. D. of P. and L. E.
Walton No. 2,	Allegheny,			John Young,	West Elizabeth,	M. D. of Pennsylvania
United Coal Co.						
Ella, Patterson No. 2,	Allegheny,	John Gibson, Jr.,	Pittsburgh,	Charles Elliott, Samuel Daugherty,	Sunnyside, Elizabeth,	M. D. of P. and L. E.
Diamond Coal and Coke Co.						
Huston Run,	Washington,	A. R. Budd,	Pittsburgh,	George Gillingham,	Courtney,	M. D. of Pennsylvania
Blaine Coal Co.						
Blaine,	Allegheny,	H. K. Knopf,	Pittsburgh,	James Clark,	Lock No. 3,	M. D. of P. and L. E.
Pittsburgh Coal Co.						
Manown,	Allegheny,	George W. Schluederberg,	Pittsburgh,	F. J. Couninhan,	Gallatin,	M. D. of P. and L. E.
George W. Gumbert						
Camden,	Allegheny,			George W. Gumbert,	Dravosburg,	M. D. of Pennsylvania
Joseph L. Pearce						
Budd,	Westmoreland,			Joseph L. Pearce,	Webster,	M. D. of P. and L. E.
B. S. Hammill Coal Co.						
Hammill,*	Allegheny,	B. S. Hammill,	Pittsburgh,	Matthew Herron,	Bunola,	M. D. of P. and L. E.

*New mine.

TABLE 2.—Number of tons of coal mined and tons of coke produced, number of days worked, number of persons employed, number killed and injured, quantity of powder, dynamite and permissible explosives used, etc.

Names of Operators and Mines	County	Number of tons of coal shipped to market	Number of tons used at mines for steam and heat	Number of tons sold to local trade and used by employes	Number of tons used in manufacture of coke	Total production of coal in tons	Total production of coke in tons	Number of coke ovens	Number of days worked	Number of employes	Number of fatal accidents	Number of non-fatal accidents	Explosives			Number of horses and mules
													Number of pounds of powder used	Number of pounds of dynamite used	Number of pounds of permissible explosives used	
Monongahela River Consolidated Coal and Coke Co.																
Bunola, ...	Allegheny, ...	369,422	2,640	586	....	372,648	....	......	275	392	1	1	43,287	....	2,511	26
Coal Bluff, ...	Washington, ...	179,608	2,242	134	....	181,984	....	......	266	219	1	2	32,110	600	....	22
Gallatin, ...	Allegheny, ...	337,959	7,975	6,466	....	352,400	....	......	255	364	2	2	27,085	....	....	30
Lovedale, ...	Allegheny, ...	374,299	7,837	253	....	382,389	....	......	289	336	2	3	36,000	700	19,157	25
Mongah, ...	Allegheny, ...	121,901	6,201	6	....	128,108	....	......	198	329	....	3	108,670	....	2,975	20
Risher, ...	Allegheny, ...	284,447	4,392	645	....	289,484	....	......	254	243	1	1	50,000	....	....	22
Sunnyside, ...	Allegheny, ...	275,058	2	34,183	....	309,243	....	......	273	340	1	3	24,361	....	20,902	22
Walton No. 2, ...	Allegheny, ...	270,474	3,331	407	....	274,212	....	......	268	305	2	....	43,040	....	....	23
Totals, ...	....	2,213,168	34,620	42,680	....	2,290,468	....	......	......	2,528	10	15	364,553	1,300	45,545	190
United Coal Co.																
Ella, ...	Allegheny, ...	262,094	8,695	752	....	271,541	....	......	250	299	1	3	46,000	....	900	25
Patterson No. 2, ...		396,566	8,145	940	....	405,651	....	......	275	327	....	3	55,000	....	700	24
Totals, ...	....	658,660	16,840	1,692	....	677,192	....	......	......	626	1	6	101,000	....	1,600	49
Diamond Coal and Coke Co.																
Huston Run, ...	Washington, ...	517,213	3,840	2,846	....	523,899	....	......	301	411	....	....	43,000	100	....	22
Blaine Coal Co.																
Blaine, ...	Allegheny, ...	495,149	7,248	3,872	....	506,269	....	......	263	573	1	4	70,373	....	....	38

TABLE 2.—Continued

Names of Operators and Mines	County	Number of tons of coal shipped to market	Number of tons used at mines for steam and heat	Number of tons sold to local trade and used by employes	Number of tons used in manufacture of coke	Total production of coal in tons	Total production of coke in tons	Number of coke ovens	Number of days worked	Number of employes	Number of fatal accidents	Number of non-fatal accidents	Explosives			Number of horses and mules
													Number of pounds of powder used	Number of pounds of dynamite used	Number of pounds of permissible explosives used	
Pittsburgh Coal Co. Manown, ...	Allegheny, ...	222,826	5,269	444	....	228,539	....	......	245	256	1	2	20,030	....	14,015	22
George W. Gumbert Camden, ...	Allegheny, ...	75,539	....	....	....	75,539	....	......	257	120	....	2	7,720	....	....	6
Joseph L. Pearce Budd, ...	Westmoreland, ..	41,559	486	68	....	42,118	....	......	293	65	....	....	....	....	....	8
B. S. Hammill Coal Co. Hammill, ...	Allegheny, ...	14,870	....	....	....	14,870	....	......	173	58	....	....	1,490	....	....	2
Grand totals, ...	....	4,238,984	68,303	51,602	....	4,358,889	....	......	......	4,637	13	29	608,166	1,400	61,160	332

TABLE 2—Part 2

Names of Operators	County	Number of Boilers					Locomotives				Number of steam engines of all classes	Total horse power	Number of pumps delivering water to surface	Capacity in gallons per minute	Quantity delivered to surface per minute—gallons	Number of electric dynamos	Number of air compressors
		Cylindrical	Horse power	Tubular	Horse power	Total horse power	Gasoline	Steam	Air	Electric							
Monongahela River Consolidated Coal and Coke Co.,	Allegheny, ... Washington, ..	......	......	33	3,985	3,985	......	2	......	23	33	4,477	23	4,540	3,400	12	......
United Coal Co., ...	Allegheny, ...	......	......	10	1,275	1,275	......	1	......	11	15	1,615	5	1,750	1,318	5	1
Diamond Coal and Coke Co.,..	Washington, ...	......	......	3	375	375	......	......	......	3	4	235	4	610	400	3	......
Blaine Coal Co., ...	Allegheny, ...	......	......	7	1,050	1,050	......	......	......	7	7	1,190	4	580	370	3	......
Pittsburgh Coal Co., ...	Allegheny, ...	......	......	6	600	600	......	......	......	1	6	600	1	150	100	2	......
George W. Gumbert, ...	Allegheny, ...	2	125	1	40	165	......	......	......	1	1	80	......	......	......	......	......
Joseph L. Pearce, ...	Westmoreland, .	......	......	1	125	125	......	......	......	......	2	150	......	......	......	......	......
B. S. Hammill Coal Co., ...	Allegheny, ...	......	......	....	....	*	......	......	......	1	......	......	1	35	25	......	......
Totals, ...	....	2	125	61	7,450	7,575	......	3	......	47	68	8,347	38	7,665	5,613	25	1

*Power from West Penn Electric Co.

TABLE 3.—Number of Each Class of Employes Inside and Outside of Mines

Names of Operators	County	Inside												Outside								
		Mine foremen	Assistant mine foremen	Fire bosses	Miners	Machine runners	Machine loaders	Machine scrapers	Drivers and runners	Doorboys and helpers	Company men	All other employes	Total inside	Superintendents	Foremen	Blacksmiths and carpenters	Engineers and firemen	Coke employes	Bookkeepers and clerks	All other employes	Total outside	Grand total inside and outside
Monongahela River Consolidated Coal and Coke Co.,	Allegheny, ... Washington, ..	8	19	24	514	95	1,012	95	148	16	262	37	2,230	5	8	44	40	....	9	192	298	2,528
United Coal Co., ...	Allegheny, ...	2	5	9	88	23	300	23	46	4	56	1	557	2	1	6	13	....	2	45	69	626
Diamond Coal and Coke Co.,	Washington, ..	1	1	4	66	14	211	14	26	1	36	....	374	1	....	6	5	....	1	24	37	411
Blaine Coal Co., ...	Allegheny, ...	1	4	5	75	26	306	26	34	6	8	30	521	1	2	6	8	....	1	34	52	573
Pittsburgh Coal Co., ...	Allegheny, ...	1	3	3	44	9	110	9	15	1	26	....	221	....	1	4	5	....	1	24	35	256
George W. Gumbert, ...	Allegheny, ...	1	..	....	44	6	36	6	7	....	5	....	105	1	....	1	1	....	1	11	15	120
Joseph L. Pearce, ...	Westmoreland,	1	..	2	44	....	......	....	3	....	2	2	54	1	1	2	2	....	1	4	11	65
B. S. Hammill Coal Co., ...	Allegheny, ...	1	..	1	....	2	40	2	2	....	4	....	52	....	1	2	....	....	....	3	6	58
Totals, ...	....	16	32	48	875	175	2,015	175	281	28	399	70	4,114	11	14	71	74	....	16	337	523	4,637

TABLE 3.—Part 2

Names of Operators	County	Average Number of Days Worked												
		January	February	March	April	May	June	July	August	September	October	November	December	Total
Monongahela River Consolidated Coal and Coke Co., ..	Allegheny, ... Washington, ...	21	19	17	22	23	21	22	23	23	26	20	22	259
United Coal Co.,	Allegheny, ...	19	21	22	22	24	24	21	20	25	24	23	17	262
Diamond Coal and Coke Co.,	Washington, ...	26	24	26	22	26	25	25	25	25	27	23	27	301
Blaine Coal Co.,	Allegheny, ...	24	18	20	24	24	22	24	22	24	24	23	14	263
Pittsburgh Coal Co.,	Allegheny, ...	24	18	23	24	18	17	21	23	19	21	21	16	245
George W. Gumbert,	Allegheny, ...	15	23	21	23	22	23	19	25	22	21	19	24	257
Joseph L. Pearce,	Westmoreland, ...	26	23	25	23	26	25	25	25	22	24	24	25	293
B. S. Hammill Coal Co.,	Allegheny, ...	......	......	......	......	......	25	26	26	25	27	24	20	173

TABLE 4.—Fatal Accidents Inside and Outside of Mines

Date of accident		Name of Person	Nationality	Occupation	Age	Married or single	Number of widows	Number of orphans	Name of Mine	County	Nature and Cause of Accident in Brief
Jan.	17	Thomas Kiggins, Sr.,	American, ..	Driver, ...	46	M.	1	5	Walton No. 2, ...	Allegheny, ..	Fatally injured by being caught between car and post on parting. Died two hours afterward.
Feb.	17	Paul Stanitsky, ...	Polish,......	Loader, ...	37	M.	1	2	Coal Bluff, ...	Washington,	Killed instantly by fall of coal at face of room. He was loading a car when the whole butt fell and caught him.
		Frank Minka, ...	Polish,......	Loader, ...	38	S.	....	....	Bunola, ...	Allegheny, ..	Fatally injured by fall of coal while taking down pillar. Died a few hours afterward.
March	6	John Cattaneon, ...	Italian, ...	Machine scraper,	42	M.	1	4	Sunnyside, ...	Allegheny, ..	Fatally injured. Leg fractured by fall of coal at face of room. He was taken to the hospital and his leg was amputated the next day. Died March 20.
	30	Tony Pascarella, ...	Italian, ...	Laborer, ...	36	M.	1	3	Manown, ...	Allegheny, ..	Instantly killed by fall of roof on entry while cleaning up a fall.
April	2	Alfred Hale, ...	American, ..	Roadman, ...	53	M.	1	....	Ella, ...	Allegheny, ..	Fatally injured by being struck by haulage rope while repairing a sheave that had been displaced. Died a few hours afterward. Outside.
	10	Charles Hart, Sr., ...	American, ..	Mine foreman	61	M.	1	....	Lovedale, ...	Allegheny, ..	Fatally injured by being caught between motors on main parting. Died shortly afterward.
	29	Mike Framancheck, ..	Slavonian, ..	Car cleaner,.	16	S.	....	....	Gallatin, ...	Allegheny, ..	Fatally injured by being caught between slate chute and motor-larry. Died shortly afterward. Outside.
June	7	Samuel Bilakovick, ..	Russian, ...	Loader, ...	43	S.	....	....	Blaine, ...	Allegheny, ..	Fatally injured by fall of slate at face of room. Died on the way home.
Aug.	22	Joseph Treplevits, ...	Russian, ...	Loader, ...	34	M.	1	2	Risher, ...	Allegheny, ..	Instantly killed by fall of slate at face of room.
Sept.	17	Peter Losh, ...	Italian, ...	Loader, ...	19	S.	...	....	Gallatin, ...	Allegheny, ..	Fatally injured by fall of slate at face of room. Died next day.
	28	Douthard McGowan, .	American, ..	Trip-rider, .	33	S.	....	....	Lovedale, ...	Allegheny, ..	Instantly killed by derailed loaded car.

Oct. 29	Patrick Brennen, ...	American,....	Pumper, ...	27	S.	....	....	Walton No. 2, ...	Allegheny, ..	Drowned by falling into river. He was standing on the edge of a barge and while trying to catch the line that was thrown to him by the crew of the steamboat he overbalanced and fell into the river. Outside.

TABLE 5.—Non-Fatal Accidents Inside and Outside of Mines

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Name of Mine	County	Nature and Cause of Accident in Brief
Jan. 4	Samuel Letonick,	Slavonian,	Miner,	26	S.	Ella,	Allegheny,	Foot injured by fall of coal at face of entry.
22	Steve Youlchalk,	Slavonian,	Miner,	35	M.	Ella,	Allegheny,	Two toes cut off by fall of slate at face of room.
Feb. 11	Michael Garry, Sr.,	English,	Loader,	56	M.	Coal Bluff,	Washington,	Foot fractured by fall of slate at pillar work.
24	Frank Skidle,	Austrian,	Loader,	27	M.	Blaine,	Allegheny,	Face and head badly injured by fall of roof at face of room.
April 26	Benjamin Ventolini,	Italian,	Loader,	50	M.	Gallatin,	Allegheny,	Leg broken and lung punctured by fall of coal at face of room.
May 3	Harry Christy,	American,	Car pusher,	25	M.	Mongah,	Allegheny,	Three ribs broken. The river tipple fell and he went down with the tipple. Outside.
	James Miller,	American,	Greaser,	20	S.	Mongah,	Allegheny,	Face, hands and legs burned by explosion of coal dust. Outside.
21	Samuel Debarter,	Italian,	Driver,	24	S.	Sunnyside,	Allegheny,	Two ribs broken and shoulder injured. Caught between cars and side of entry.
June 7	Joseph Adams,	English,	Miner,	48	S.	Coal Bluff,	Washington,	Three ribs broken. Struck by piece of slate from fall of coal.
July 8	Aleck ,Popescosky,	Polish,	Loader,	31	M.	Patterson No. 2,	Allegheny,	Hip bruised, ankle injured and head slightly cut by cars on entry.
11	Adam Bolinisky,	Lithuanian,	Loader,	30	M.	Patterson No. 2,	Allegheny,	Head very badly cut by fall of slate at face of room.
Aug. 8	George Brown,	Slavonian,	Loader,	30	S.	Blaine,	Allegheny,	Thigh fractured by fall of slate at face of room.
	Steve Kostry,	Slavonian,	Loader,	20	S.	Blaine,	Allegheny,	Compound fracture of right leg and a fracture of left leg by fall of coal at face of room.
12	Nicholas Canezravick,	Servian,	Miner,	27	S.	Blaine,	Allegheny,	Both legs broken by fall of roof at face of rib while drawing posts.
21	John Kent,	American,	Miner,	49	M.	Risher,	Allegheny,	Leg broken by piece of slate at pillar work.
Sept. 9	Tony Seepernis,	Lithuanian,	Driver,	22	M.	Patterson No. 2,	Allegheny,	Leg broken. Caught between car and mule on entry.

Oct.	2	John Kotrich, ...	Hungarian, .	Loader, ...	55	M.	Bunola, ...	Allegheny, ..	Leg broken by fall of roof at face of room.
	10	Robert Sample, ...	American, ..	Machine runner, ..	23	S.	Camden, ...	Allegheny, ..	Leg broken by being struck by a jack pipe.
	13	David Davis, ...	Welsh, ...	Loader, ...	49	M.	Camden, ...	Allegheny, ..	Three ribs broken by fall of roof at face of room.
	18	Adam Gidosh, ...	Slavonian, ..	Loader, ...	48	M.	Mongah, ...	Allegheny, ..	Leg broken. While lifting a loaded car on the track by means of a post, he slipped and fell and the post caught his leg against the floor.
	20	John Darench, ...	Polish, ...	Loader, ...	29	S.	Gallatin, ...	Allegheny, ..	Foot crushed by fall of slate at face of room.
	30	Joseph Grogorian, ...	Italian, ...	Loader, ...	33	S.	Sunnyside, ...	Allegheny, ..	Foot broken by fall of coal at face of room.
Nov.	3	John Greenwood, ...	English, ...	Loader, ...	47	M.	Lovedale, ...	Allegheny, ..	Arm broken by fall of slate while removing posts.
	24	David Behanna, ...	American, ..	Checkweighman, .	32	M.	Manown, ...	Allegheny, ..	Arm broken by falling from tipple into car. Outside.
Dec.	6	Joseph Nescot, ...	Slavonian, ..	Driver, ...	25	M.	Ella, ...	Allegheny, ..	Leg broken. Run over by truck on dilly road.
	10	Charles Sabodish, ...	Slavonian, ..	Loader, ...	25	S.	Lovedale, ...	Allegheny, ..	Chest crushed by cars on entry.
	11	Walter Zaconi, ...	Italian, ...	Loader, ...	23	M.	Sunnyside, ...	Allegheny, ..	Back broken by fall of slate at face of entry.
	13	Frank Christina, ...	Italian, ...	Loader, ...	21	S.	Manown, ...	Allegheny, ..	Leg broken by fall of slate while at pillar work.
	16	James Brown, ...	American, ..	Machine runner, ..	32	M.	Lovedale, ...	Allegheny, ..	Shoulder dislocated by fall of roof while at pillar work.

CONDITION OF MINES

MONONGAHELA RIVER CONSOLIDATED COAL AND COKE COMPANY

Bunola.—Ventilation in some parts was good, but in other parts was below the legal requirements. Drainage fair.

Coal Bluff.—Ventilation fair, except in one portion of the mine. Drainage fair.

Gallatin.—Ventilation fair, except in No. 6 split, where it was below the legal requirements. Drainage good. Being a very dry mine, the dust in the rooms and entries was saturated by water boxes, calcium chloride and salt. Permissible explosives were used exclusively and shot firers were employed to fire the shots. Safety lamps were used exclusively, except on the main intake where the motormen used open lights.

Lovedale.—Ventilation in No. 3 section was very much improved by installing an auxiliary fan on No. 8 face entry. Ventilation in other sections fair. Drainage good.

Mongah.—Ventilation in fair condition. Drainage good.

Risher.—Ventilation fair, except in one portion of the mine. Drainage poor. The mine was on the retreat.

Sunnyside.—Ventilation, drainage and other conditions in general, good.

Walton No. 2.—Ventilation with few exceptions, good. Drainage fair.

UNITED COAL COMPANY

Ella.—Ventilation fair, except in one portion of the mine. There was ample ventilating power, but not one-half of the volume of air produced was conducted to the active workings. An air shaft is being sunk near the face of the workings which will greatly improve conditions.

Patterson No. 2.—Ventilation and drainage good.

DIAMOND COAL AND COKE COMPANY

Huston Run.—Ventilation, drainage and other conditions good.

BLAINE COAL COMPANY

Blaine.—Ventilation good in some parts and in other parts only fair. Drainage good.

PITTSBURGH COAL COMPANY

Manown.—Ventilation and drainage good. The total volume of air produced was well conducted to the active workings. The mine was kept very clean. Being a very dry mine the dust in the rooms and entries was saturated by water cars, calcium chloride and salt. Permissible explosives were used exclusively, and shot firers were employed to fire the shots. Safety lamps were used exclusively, except on the intake where the motormen used open lights as the air was fresh from the outside.

GEORGE W. GUMBERT

Camden.—Ventilation and drainage satisfactory. The mine was on the retreat.

JOSEPH L. PEARCE

Budd.—Ventilation and drainage fair. Nearly exhausted.

B. S. HAMMILL COAL COMPANY

Hammill.—Ventilation and drainage good. A new operation opened from an old abandoned mine.

IMPROVEMENTS

MONONGAHELA RIVER CONSOLIDATED COAL AND COKE COMPANY

Bunola.—Built 140 brick stoppings and 2 overcasts. Made 200 manholes, slabbed 1000 yards of entry, laid 1400 yards of motor road and made 400 yards of drain.

Gallatin.—Put in use during the year 175 safety lamps. Has a first aid corps and a temporary hospital. Built 75 incombustible stoppings, 2 brick pump houses and 2 overcasts. Installed one 5 by 6 Deming pump. Made 25 shelter holes and extended motor road 500 feet.

Lovedale. Built 100 brick stoppings, 7 overcasts and made 77 manholes. Installed an auxiliary Sirocco fan 3 by 2½, in No. 8 face entry, also 2 pumps.

Mongah.—Has a first aid corps and a temporary hospital inside. Built 75 brick stoppings, 3 brick pump houses, 1 brick house for electric hoist and a mine foreman's office of brick and cement. All power lines have been overhauled and protected. About 3500 carloads of slate and rock have been removed from haulage roads and air courses. Laid 2,500 feet of 40 pound iron rails for motor road, and installed three telephones.

Sunnyside.—Put in use during the year 75 safety lamps. Built 82 brick stoppings, 3 overcasts, 2 brick pump houses and a lamp house. Installed two 5½ by 8 Deming pumps, 2 electric 10 H. P. pump motors and 2 mining machines. Laid 3500 feet of motor road.

Walton No. 2.—Built 50 incombustible stoppings and 1 overcast. Laid 1500 feet of motor road.

UNITED COAL COMPANY

Ella.—Installed 40 Ceag electric safety lamps. Extended dilly road 4000 feet with 40 pound iron rails. Replaced dilly lines with new ones, 10,000 feet and 16,000 feet of ¾ of an inch line. Installed 50 new pit cars. Laid 14,800 feet of motor road with 40 pound iron rails. Made one side track 700 feet long, using steel "I" beams for roof supports. Built 102 concrete stoppings and 2 overcasts. Laid 9000 feet of 3 inch water line. Made 2 new openings in isolated coal opposite side of haul from power house. Built mine foreman's office of concrete, also supply and tool house of concrete. Built one concrete abutment, 82 feet long and installed 4000 feet of trolley wire. Built a 189 foot trestle on hillside of tipple for taking empties from tipple to slate dump. Built one oil house, 12 by 14 feet, of wood, and made an extension on car shop, 12 by 20 feet. Built 2 new blocks for miners' dwellings, 30 by 60 feet each, containing 4 sections, 4 rooms to each section, also an addition to the superintendent's residence, 16 by 16 feet, containing 2 rooms.

Patterson No. 2.—Installed 40 Ceag electric safety lamps. Built 77 permanent stoppings and 7 overcasts. Laid 3729 feet of motor road, and installed one Deming pump 8 by 8½ inches. Built one concrete room for roadmen 10 by 28 feet, put down bore hole, 326 feet deep, to pump water and laid 3600 feet of 6 inch pipe line. Protected electric wires with boards. Installed 75 K. W. motor and a 6 foot drum for electric haulage on incline; also a new rope haulage, 1⅛ inches, 10,800 feet, and a new line, 1½ inches, 3000 feet long. Built one car shop, 50 by 20 by 10 feet of corrugated steel; 1 frame cement house 16 by 10 by 8 feet; 1 sand house 10 by 15 by 8 feet; 1 locomotive house of corrugated steel, 16 by 42 by 12 feet, and a new locomotive pit of concrete; 1 new oil and supply house, 12 by 25 by 7 feet; 1 stationary engine house at tipple 16 by 20 by 10 feet of corrugated steel, with a boiler 8 by 3½ feet in diameter; 1 new boiler on pump boat. Built a new harness repair shop, 8 by 10 by 7 feet, frame with slate roof; a house for car greaser, 8 by 10 by 7 feet, and remodeled the mine office. Made a new concrete motor pit in the machine shop. Erected two new 60 feet stacks at power plant and painted four stacks.

DIAMOND COAL AND COKE COMPANY

Huston Run.—Built 64 brick stoppings and made 60 shelter holes. Built 1 pump house of brick and steel. Installed a centrifugal pump, capacity 400 gallons per minute. Laid 1300 feet of 6 inch pipe; installed one 150 K. W. generator driven by an engine having the necessary foundations, buildings, et cetera. Built a temporary hospital room, 14 by 14 feet.

BLAINE COAL COMPANY

Blaine.—Built 79 brick stoppings and 2 overcasts. Extended electric locomotive roads to the different sections, a total of 3500 feet. Blasted 2400 feet of drain on main entry. Installed 150 K. W. Westinghouse generator set, operated by West Penn Electric Company. Installed a 10-ton Morgan-Gardner locomotive for haulage, added 100 new pit cars to equipment and built a car shop, 18 by 24 feet.

PITTSBURGH COAL COMPANY

Manown.—Built 76 brick stoppings, a new barn, and made 50 shelter holes.

B. S. HAMMILL COAL COMPANY

Hammill.—This is a new operation opened up from an old abandoned mine on a small scale. Installed a 75 K. W. General Electric rotary converter, an American blower fan, 6 by 1 foot 5 inches by 2 feet 5 inches, a 5 ton motor and 2 electric mining machines. The power is supplied by the West Penn Electric Company. Built a tipple equipped with an automatic dump and the necessary screens. Constructed the necessary railroad side tracks, with proper grades, so that the railroad cars will gravitate to and from the tipple.

PROSECUTIONS FOR VIOLATION OF THE MINING LAWS

September 15.—William Whitefield, pumper, Ella mine, United Coal Company. Charge: Using an open light where he should have used a safety lamp. Plead guilty before a justice. After being severely reprimanded he was permitted to settle by paying the cost and promising to obey the law thereafter.

November 26.—Lucas Stufuly, loader, Bunola mine, Monongahela River Consolidated Coal and Coke Company. Charge: Violation of Rule 2, General Rules. He was given a hearing before an alderman and was held for court. The grand jury ignored the case, the county paying the cost.

MINE FOREMEN'S, ASSISTANT MINE FOREMEN'S AND FIRE BOSSES' EXAMINATIONS

The annual examination of applicants for certificates of qualification as mine foremen, assistant mine foremen and fire bosses was held in the First National Bank Building, Monongahela, May 6, 7 and 8. The Board of Examiners was composed of John F. Bell, Inspector; James Henderson, Superintendent, and Griff Griffiths, Miner.

There were 24 applicants for certificates of qualification as mine foremen and assistant mine foremen, and 46 applicants for certificates of qualification as fire bosses. The following persons passed a satisfactory examination and were granted certificates:

MINE FOREMEN

First Grade

Robert A. Jaap, Charles H. Sutton, Adolph Edward Hebner, James R. Cavanaugh, Elizabeth; Joseph Bennett, Lock No. 3; Samuel F. Miller, Charles E. Robb, Finleyville; Percy M. Willis, Belle Vernon.

Second Grade

Jacob Gilmer, John J. Hynde, Elizabeth; John Bach, West Elizabeth; Haylet Easton, Belle Vernon; William G. Barton, Floreffe.

ASSISTANT MINE FOREMEN

Jacob Gilmer, John J. Hynde, Elizabeth; William Booth, Webster; Domenick Penzie, Dravosburg.

FIRE BOSSES

John J. Cavanaugh, Paul C. Douglass, Frank J. Carney, James W. Ainsco, Albert A. Morris, William Hansen, Robert K. Brown, James Jaap, Josiah J. Lewis, Elizabeth; Otho H. Davison, Joseph H. Kelly, Joseph G. McDonal, William R. Kelly, Philip E. Kelly, Belle Vernon; John D. Foster, George W. Booth, Samuel M. Sharrow, Thomas H. Bainbridge, Webster; John H. Thompson, Robert Holmes; Gallatin; Samuel Hughes, John Young, Jr., Floreffe; John Hoyes, Gibsonton; Walter Miller, New Eagle; Frank J. Lefever, Pricedale; Henry Tandy, Sunnyside; John McHenry, Manown; John C. Watson, Courtney.

FOURTEENTH DISTRICT

ALLEGHENY, WESTMORELAND, ARMSTRONG, INDIANA AND BUTLER COUNTIES

Freeport, Pa., February 18, 1914.

Hon. James E. Roderick, Chief of Department of Mines:

Sir: In compliance with the Act of Assembly of June 9, 1911, I herewith transmit my annual report of the Fourteenth Bituminous District for the year ending December 31, 1913.

The report contains the usual tables and statistics, a brief description of the sanitary condition of the mines and the most important improvements made during the year, and a report of the annual examination of applicants for certificates of qualification as mine foremen and fire bosses.

Respectfully submitted,

DAVID YOUNG, Inspector.

SUMMARY OF STATISTICS

Number of mines,	69
Number of mines in operation,	58
Number of tons of coal shipped to market,	7,430,206
Number of tons used at mines for steam and heat,	150,196
Number of tons sold to local trade and used by employes,	121,711
Number of tons used in the manufacture of coke,	....
Number of tons of coal produced,	7,702,113
Number of tons of coke produced,	....
Number of coke ovens,	33
Number of coke ovens in operation,	....
Number of tons of coal produced by pick mining,	2,131,171
Number of tons produced by compressed air machines,	752,602
Number of tons produced by electrical machines,	4,818,340
Number of persons employed inside of mines,	6,044
Number of persons employed outside, including coke workers,	864
Number of persons employed at manufacture of coke,	....
Number of fatal accidents inside of mines,	17
Number of fatal accidents outside,	4
Number of non-fatal accidents inside of mines,	31
Number of non-fatal accidents outside,	2
Number of tons of coal produced per fatal accident inside,	453,065
Number of tons produced per fatal accident outside,	1,925,528
Number of tons produced per fatal accident inside and outside,	366,767
Number of persons employed per fatal accident inside,	356
Number of persons employed per fatal accident outside,	216
Number of persons employed per fatal accident inside and outside,	329
Number of persons employed per non-fatal accident inside,	195
Number of persons employed per non-fatal accident outside,	432
Number of persons employed per non-fatal accident inside and outside,	209
Number of wives made widows,	13
Number of children made orphans,	27
Number of steam locomotives used inside of mines,	....
Number of steam locomotives used outside,	2
Number of compressed air locomotives used inside,	....
Number of compressed air locomotives used outside,	....
Number of electric motors used inside,	92
Number of electric motors used outside,	....
Number of gasoline locomotives used inside,	....
Number of fans in use,	50
Number of furnaces in use,	8
Number of gaseous mines in operation,	16
Number of non-gaseous mines in operation,	42
Number of new mines opened,	3
Number of old mines abandoned,	1

TABLE A

PRODUCTION OF COAL

Names of Operators	Tons
Ford Collieries Company,	916,157
Bessemer Coal and Coke Company,	590,402
Saltsburg Coal Company,	503,470
Allegheny Coal Company,	440,514
Valley Camp Coal Company,	425,414
Cornell Coal Company,	351,473
McFetridge Brothers,	262,367
Superior Fuel Company,	260,056
Pittsburgh Plate Glass Company,	249,664
Keystone Coal Company,	209,543
Cochran Coal Company,	206,454
Avonmore Coal and Coke Company,	198,573
Pennsylvania Salt Manufacturing Company ,	196,940
Pine Run Company,	193,073
Roaring Run Mining Company,	183,284
Conemaugh Coal Company,	137,845
West Penn Coal Mining Company,	132,058
Mitchell-Watson Coal and Coke Company,	131,170
United States Sewer Pipe Company,	120,000
Allegheny Coal and Coke Company,	109,466
Howard Gas Coal Company,	109,301
Armstrong County Coal Company,	104,882
Paulton Coal Mining Company,	96,758
Maher Coal and Coke Company,	95,913
Kerr Coal Company,	95,267
Raridan Coal Company,	92,383
Apollo Coal Company,	89,882
Dalliba Coal Company,	85,833
Ben Franklin Coal Company,	84,877
Leechburg Coal and Coke Company,	74,970
Aladdin Coal and Coke Company,	71,521
Haddon Coal Company,	64,710
Gilpin Coal Company,	62,064
Logansport Coal Company,	62,002
Lucesco Coal Company,	61,379
Kiskiminetas Coal Company,	59,584
Blairsville Coke Company, Limited,	59,435
Bowman Coal Company,	59,364
Valley Coal Company,	53,386
Butler Junction Coal Company,	50,854
Pine Run Coal and Coke Company,	48,646
Maher and Graff Coal Company,	47,743
West Leechburg Steel and Tin Plate Company,	39,251
West Penn Mining Company,	36,512
Bagdad Coal and Coke Company,	33,441
Edri Coal Company,	29,654
East Deer Coal Company,	29,303

Lewis Coal Company,	26,386
American Sheet and Tin Plate Company,	24,110
Kier Fire Brick Company,	17,200
Buffalo Creek Coal and Brick Company,	8,073
George E. Boyd Coal Company,	4,612
Boyd Brothers Coal Company,	4,061
Provident Coke and Mining Company,	833
Total,	7,702,113

Production by Counties

Allegheny,	3,457,196
Westmoreland,	2,098,565
Armstrong,	1,062,490
Indiana,	980,522
Butler,	103,340
Total,	7,702,113

TABLE B.—Fatal and non-fatal accidents inside and outside of mines; number of tons of coal produced per accident; number of persons employed; number employed per accident

Names of Operators	Fatal Accidents			Non-Fatal Accidents			Tons of coal produced per fatal accident inside	Tons of coal produced per non-fatal accident inside	Number of employes inside	Number of employes outside	Total number of employes	Number of employes inside per fatal accident	Number of employes outside per fatal accident	Number of employes inside per non-fatal accident	Number of employes outside per non-fatal accident
	Inside	Outside	Total	Inside	Outside	Total									
Ford Collieries Co.,	......	1	1	1	1	2	....	916,157	517	64	581	....	64	517	64
Bessemer Coal and Coke Co.,	4	2	6	1	......	1	147,600	590,402	404	74	478	101	37	404	....
Saltsburg Coal Co.,	1	......	1	1	......	1	503,470	503,470	403	35	438	403	....	403	....
Allegheny Coal Co.,	3	......	3	1	......	1	146,838	440,514	321	65	386	107	....	321	....
Valley Camp Coal Co.,	1	......	1	8	......	8	425,414	53,177	262	47	309	262	....	33	....
Cornell Coal Co.,	......	1	1	3	......	3	....	117,158	228	30	258	....	30	76	....
McFetridge Brothers,	1	......	1	1	......	1	262,367	262,367	187	27	214	187	....	187	....
Superior Fuel Co.,	....	......	......	1	......	1	....	260,056	168	31	199	....	....	168	....
Keystone Coal Co.,	1	......	1	......	......	......	209,543	....	116	12	128	116	....	....	....
Cochran Coal Co.,	2	......	2	......	......	......	103,227	....	160	16	176	80	....	....	....
Avonmore Coal and Coke Co.,	......	......	......	1	......	1	....	198,573	153	13	166	....	....	153	....
Pennsylvania Salt Manufacturing Co.,	......	......	......	4	......	4	....	49,235	170	28	198	....	....	42	....
Mitchell-Watson Coal and Coke Co.,	......	......	......	1	......	1	....	131,170	105	20	125	....	....	105	....
United States Sewer Pipe Co.,	1	......	1	......	......	......	120,000	....	118	11	129	118	....	....	....
Howard Gas Coal Co.,	1	......	1	......	......	......	109,301	....	97	21	118	97	....	....	....
Kerr Coal Co.,	......	......	......	1	......	1	....	95,267	77	9	86	....	....	77	....
Lucesco Coal Co.,	......	......	......	1	......	1	....	61,379	69	9	78	....	....	69	....
Kiskiminetas Coal Co.,	1	......	1	......	......	......	59,584	....	93	18	111	93	....	....	....
Blairsville Coke Co., Limited,	......	......	......	1	......	1	....	59,435	85	5	90	....	....	85	....
Butler Junction Coal Co.,	......	......	......	1	1	2	....	50,854	60	7	67	....	....	60	7
West Leechburg Steel and Tin Plate Co.,	......	......	......	1	......	1	....	39,251	36	....	36	....	....	36	....
West Penn Mining Co.,	......	......	......	2	......	2	....	18,256	43	7	50	....	....	22	....
Lewis Coal Co.,	1	......	1	......	......	......	26,386	....	22	6	28	22	....	....	....
American Sheet and Tin Plate Co.,	......	......	......	1	......	1	....	24,110	29	2	31	....	....	29	....
Miscellaneous Companies,	......	......	......	......	......	......	....	....	2,121	307	2,428	....	....	....	....
Totals and averages for district,	17	4	21	31	2	33	453,065	248,455	6,044	864	6,908	356	216	195	432

TABLE C.—Classification of Fatal Accidents Inside and Outside of Mines

	Months													
	January	February	March	April	May	June	July	August	September	October	November	December	Totals	Percentages
Causes of Accidents Inside														
Falls of coal, ...	1	....	....	....	....	....	1	1	....	....	....	....	3	17.65
Falls of slate, ...	....	....	..	....	....	....	1	....	....	1	1	....	3	17.65
Falls of roof, ...	1	....	1	....	....	....	....	1	....	....	....	1	4	23.53
Mine cars, ...	....	....	. ..	....	1	....	1	1	1	....	1	1	6	35.29
Electricity, ...	....	....	....	....	....	....	....	....	....	....	....	1	1	5.88
Totals, ...	2	....	1	....	1	....	3	3	1	1	2	3	17	100.00
Causes of Accidents Outside														
Cars, ...	....	....	1	....	....	....	1	1	....	....	....	....	3	75.00
Falling into shafts, ...	....	1	....	....	....	....	....	....	....	....	....	....	1	25.00
Totals, ...	....	1	1	....	....	....	1	1	....	....	....	....	4	100.00
Grand totals inside and outside, ...	2	1	2	....	1	....	4	4	1	1	2	3	21	......

TABLE D.—Classification of Non-Fatal Accidents Inside and Outside of Mines

	Months													
	January	February	March	April	May	June	July	August	September	October	November	December	Totals	Percentages
Causes of Accidents Inside														
Falls of coal, ...	....	....	....	....	1	....	....	....	....	2	1	....	4	12.90
Falls of slate, ...	1	....	....	....	2	....	....	1	....	....	....	1	5	16.13
Falls of roof, ...	....	....	....	....	....	1	....	....	....	1	....	....	2	6.46
Mine cars, ...	1	1	1	4	2	2	....	....	....	1	....	....	12	38.71
Explosions of gas and dust, ...	....	3	....	....	....	....	....	....	....	....	....	....	3	9.68
Explosions of powder and dynamite, ...	....	....	....	1	....	....	....	....	....	....	....	....	1	3.22
Machinery, ...	....	....	1	....	....	....	....	....	....	....	....	1	2	6.46
Electricity, ...	....	....	....	....	....	....	....	1	....	....	....	....	1	3.22
Falling from scaffold,	....	....	....	....	....	....	....	....	1	....	....	....	1	3.22
Totals, ...	2	4	2	5	5	3	....	2	1	4	1	2	31	100.00
Causes of Accidents Outside														
Cars, ...	....	....	....	....	....	1	....	....	....	....	....	....	1	50.00
Struck by lever, ...	....	1	....	....	....	....	....	....	....	....	....	....	1	50.00
Totals, ...	....	1	....	....	....	1	....	....	....	....	....	....	2	100.00
Grand totals inside and outside, ...	2	5	2	5	5	4	....	2	1	4	1	2	33	......

TABLE E.—Occupations of Persons Killed or Fatally Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
Inside													
Miners,	1	....	1	....	....	....	1	1	1	....	1	2	8
Machine loaders,	1	....	....	....	....	....	2	1	....	1	1	....	6
Drivers and runners,	....	....	....	....	1	....	....	....	....	....	....	....	1
Doorboys and helpers,	....	....	....	....	....	....	....	....	....	....	....	1	1
Laborers,	....	....	....	....	....	....	....	1	....	....	....	....	1
Totals,	2	....	1	....	1	....	3	3	1	1	2	3	17
Outside													
Motormen,	....	....	....	....	....	....	....	1	....	....	....	....	1
Laborers,	....	1	1	....	....	....	1	....	....	....	....	....	3
Totals,	....	1	1	....	....	....	1	1	....	....	....	....	4
Grand totals inside and outside,	2	1	2	....	1	....	4	4	1	1	2	3	21

TABLE F.—Occupations of Persons Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
Inside													
Superintendents,	....	1	....	....	....	....	....	....	....	....	....	....	1
Assistant mine foremen,	....	1	....	....	....	....	....	....	....	....	....	....	1
Fire bosses,	....	1	....	....	....	....	....	....	....	....	....	....	1
Miners,	1	....	....	2	4	1	....	1	....	2	....	1	12
Machine runners,	....	....	....	....	....	....	....	1	....	....	....	....	1
Machine loaders,	....	1	....	....	1	....	....	....	....	1	1	1	5
Drivers and runners,	1	....	1	....	....	2	....	....	....	....	....	....	4
Doorboys and helpers,	....	....	....	3	....	....	....	....	....	1	....	....	4
Timbermen,	....	....	....	....	....	....	....	....	1	....	....	....	1
Pumpmen,	....	....	1	....	....	....	....	....	....	....	....	....	1
Totals,	2	4	2	5	5	3	....	2	1	4	1	2	31
Outside													
Superintendents,	....	1	....	....	....	....	....	....	....	....	....	....	1
Weigh bosses,	....	....	....	....	....	1	....	....	....	....	....	....	1
Totals,	....	1	....	....	....	1	....	....	....	....	....	....	2
Grand totals inside and outside,	2	5	2	5	5	4	....	2	1	4	1	2	33

TABLE G.—Nationality of Persons Killed or Fatally Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
American,	2	....	1	....	....	....	1	1	....	....	....	1	6
German,	....	1	....	....	....	....	....	....	....	....	....	....	1
Polish,	....	....	....	....	1	....	....	....	1	....	....	....	2
Hungarian,	....	....	....	....	....	....	....	1	....	....	....	....	1
Italian,	....	....	1	....	....	....	....	1	....	1	2	1	6
Slavonian,	....	....	....	....	....	....	....	1	....	....	....	1	2
Austrian,	....	....	....	....	....	....	1	....	....	....	....	....	1
Russian,	....	....	....	....	....	....	1	....	....	....	....	....	1
Montenegrian,	....	....	....	....	....	....	1	....	....	....	....	....	1
Totals,	2	1	2	....	1	....	4	4	1	1	2	3	21

TABLE H.—Nationality of Persons Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
American,	....	1	1	1	1	3	....	1	....	2	....	1	11
English,	....	2	....	1	....	....	....	....	....	....	....	....	3
Welsh,	....	....	....	....	....	....	....	1	....	....	....	....	1
Irish,	....	1	....	....	....	....	....	....	....	....	....	....	1
Polish,	1	....	....	....	....	....	....	....	....	1	....	....	2
Hungarian,	1	....	....	....	....	....	....	....	....	....	....	....	1
Italian,	....	....	1	1	2	....	....	....	....	....	....	1	5
Slavonian,	....	....	....	1	1	1	....	....	1	1	....	....	5
Russian,	....	1	....	1	....	....	....	....	....	....	1	....	3
Belgian,	....	....	....	....	1	....	....	....	....	....	....	....	1
Totals,	2	5	2	5	5	4	....	2	1	4	1	2	33

TABLE I.—Operators and mines, kind of openings, type and size of fans, size of furnaces, volume of air produced by fan or furnace per minute, number of splits of air currents and number of persons employed inside

Names of Operators and Mines	Kind of opening	Gaseous or non-gaseous	Method of ventilation	Diameter of fan in feet and inches	Width of blades in feet and inches	Depth of blades in feet and inches	Number of revolutions per minute	Water gauge developed—in inches	Name of fan	Power used	Area of furnace bars in square feet	Number of splits of air currents	Number of cubic feet of air per minute entering the mine at inlet	Total number of cubic feet of air per minute circulating in all the splits	Number of cubic feet of air per minute passing out at outlet	Number of persons employed inside
Ford Collieries Co.																
Benjamin, ...	Shaft,.....	Gaseous, ..	Fan, ...	16.0	8.0	5.0	80	.8	Capell, ...	Steam,......	..	6	160,000	71,280	163,000	274
Francis, ...	Shaft,.....	Gaseous, ..	Fan, ...	16.0	8.0	5.0	68	.6	Capell, ...	Steam,......	..	4	105,000	75,800	107,500	243
Bessemer Coal and Coke Co.																
Bessemer No. 1, ...	Shaft,.....	Gaseous, ..	Fan, ...	13.6	7.1	3.1	130	1.7	Capell, ...	Steam,....	...	7	140,000	97,620	143,000	404
Saltsburg Coal Co.																
Foster No. 1, ...	Drift, ...	Non-gas., .	Fan, ...	16.0	4.0	4.0	60	.5	Guibal, ...	Steam,......	..	3	48,000	29,200	50,000	140
Foster No. 2, ...	Drift, ...	Non-gas., .	Fan, ...	8.0	4.0	3.6	220	.9	Kurderer, ..	Steam,......	..	3	50,000	39,500	52,000	220
Foster No. 3, ...	Drift,.....	Non-gas., .	Fan, ...	7.0	1.3	2.5	150	.4	Stine, ...	Electricity,.	..	1	20,000	7,000	21,000	43
Allegheny Coal Co.																
Harwick, ...	Shaft,.....	Gaseous, ..	Fan, ...	13.6	7.0	6.5	140	.2	Capell, ...	Steam,......	..	7	140,000	75,200	142,800	321
Valley Camp Coal Co.																
Valley Camp, ...	Drift, ...	Gaseous, ..	Fan, ...	5.0	7.6	4.0	140	.2	Sirocco, ...	Electricity,.	..	5	89,500	78,100	90,000	262
Cornell Coal Co.																
Cornell, ...	Drift, ...	Gaseous, ..	Fan, ...	11.0	7.0	3.0	200	2.5	American Blower,	Steam,......	..	3	82.500	61,500	85,000	228
McFetridge Brothers																
Hite, ...	Drift, ...	Gaseous, ..	Fan, ...	8.0	4.0	2.5	160	1.5	Jeffrey, ...	Steam,......	..	2	80,000	41,000	81,000	187

TABLE I.—Continued

Names of Operators and Mines	Kind of opening	Gaseous or non-gaseous	Method of ventilation	Diameter of fan in feet and inches	Width of blades in feet and inches	Depth of blades in feet and inches	Number of revolutions per minute	Water gauge developed—in inches	Name of fan	Power used	Area of furnace bars in square feet	Number of splits of air currents	Number of cubic feet of air per minute entering the mine at inlet	Total number of cubic feet of air per minute circulating in all the splits	Number of cubic feet of air per minute passing out at outlet	Number of persons employed inside
Superior Fuel Co. Superior No. 1,	Shaft,	Gaseous,	Fan,	20.0	6.0	5.0	58	1.4	Robinson,	Steam,	..	2	88,000	76,680	90,000	168
Pittsburgh Plate Glass Co. Creighton,	Drift,	Gaseous,	Fan,	20.0	6.0	5.0	70	1.5	Guibal,	Steam,	..	2	120,000	41,500	122,000	186
Keystone Coal Co. Mooween No. 1,	Drift,	Non-gas.,	Fan,	6.0	4.0	2.6	194	1.5	Robinson,	Electricity,	..	2	68,350	50,150	71,100	116
Cochran Coal Co. Cochran No. 1,	Drift,	Non-gas.,	Fan,	16.0	5.0	4.0	95	1.8	Guibal,	Steam,	..	3	75,000	32,000	80,000	160
Avonmore Coal and Coke Co. Avonmore,	Drift,	Non-gas.,	Fan,	16.0	4.0	4.0	98	1.4	Guibal,	Steam,	..	3	50,000	28,000	52,000	153
Pennsylvania Salt Manufacturing Co. Natrona No. 1,	Drift,	Non-gas.,	Fan,	10.0	7.0	2.6	140	1.6	Clifford,	Electricity,	..	2	89,000	44,520	93,000	121
Natrona No. 2,	Drift,	Non-gas.,	Fan,	9.0	4.0	3.0	104	.6	Clifford,	Electricity,	..	1	28,000	2,400	32,400	49
Pine Run Co. Lewis,	Drift,	Gaseous,	Fan,	16.0	4.6	4.6	70	.5	Brazil,	Steam,	..	2	56,000	20,000	57,000	92
Roaring Run Mining Co. Roaring Run No. 1,	Drift,	Non-gas.,	Fan,	10.0	4.0	3.6	250	1.0	Clifford,	Electricity,	..	2	50,000	32,000	52,000	140

Conemaugh Coal Co. Conemaugh, ...	Drift, ...	Non-gas., .	Fan, ...	12.0	3.6	3.6	90	.5	Brazil, ...	Steam,...		[illegible]	54,000	19,000	60,000	130
West Penn Coal Mining Co. West Penn No. 1, ...	Drift, ...	Gaseous, ..	Fan, ...	8.0	2.6	3.0	324	.9	Stine, ...	Steam,......	..	1	32,000	16,720	33,000	80
Mitchell-Watson Coal and Coke Co. Mitchell-Watson No. 1, ...	Drift, ...	Non-gas.,	Fan, ...	12.0	3.8	3.4	125	.8	Brazil, ...	Steam,......	..	2	50,000	27,000	50,960	105
United States Sewer Pipe Co. Johnetta No. 2, ...	Shaft,.....	Gaseous, ..	Fan, ...	10.0	5.6	3.0	150	.8	Pittsburgh Stoker,	Electricity,	..	2	46,440	30,000	50,000	118
Allegheny Coal and Coke Co. Avenue, ...	Drift, ...	Non-gas., .	Fan, ...	16.0	6.0	4.0	100	.8	Clifford, ...	Electricity,.	..	2	56,000	22,000	57,800	89
Howard Gas Coal Co. Mt. Gray, ...	Drift, ...	Non-gas., .	Fan, ...	12.0	3.0	4.0	70	.5	Brazil, ...	Steam,......	..	2	35,000	25,000	36,000	97
Armstrong County Coal Co. Armstrong, ...	Drift, ...	Non-gas., .	Fan, ...	12.0	4.0	3.0	105	.5	Brazil, ...	Steam,......	..	3	40,000	31,380	42,000	98
Paulton Coal Mining Co. Paulton, ...	Drift, ...	Gaseous, ..	Fan, ...	16.0	4.0	4.6	90	.9	Brazil, ...	Steam,......	..	2	36,000	23,000	38,000	111
Maher Coal and Coke Co. Maher No. 4, ...	Drift, ...	Non-gas., .	Fan, ...	12.0	4.0	3.3	67	.4	Brazil, ...	Gas,.........	..	2	37,000	26,400	38,500	104
Kerr Coal Co. Kerr No. 8, ...	Drift, ...	Non-gas., .	Fan, ...	6.0	4.0	1.4	156	.8	Sirocco, ...	Electricity,.	..	1	22,000	21,000	23,000	77
Raridan Coal Co. Raridan, ...	Drift, ...	Non-gas., .	Fan, ...	15.0	4.6	4.0	60	1.0	Brazil, ...	Steam,......	..	1	27,000	15,000	28,000	89
Apollo Coal Co. Northwest, ...	Drift, ...	Non-gas., .	Fan, ...	12.0	5.0	3.7	110	1.5	Lepley, ...	Electricity,.	..	2	40,000	30,000	42,000	95
Dalliba Coal Co. Dalliba, ...	Drift, ...	Gaseous, ..	Fan, ...	12.0	3.8	4.0	100	.8	Brazil, ...	Steam,......	..	2	23,000	20,000	23,800	81
Ben Franklin Coal Co. Braeburn, ...	Drift, ...	Non-gas., .	Fan, ...	4.0	3.0	2.0	300	.4	Capell, ...	Electricity,.	..	1	16,000	12,000	18,000	73
Leechburg Coal and Coke Co. Riverview, ...	Drift, ...	Gaseous, ..	Fan, ...	12.0	4.3	4.8	120	2.2	Brazil, ...	Steam,... ..	..	3	40,000	32,800	43,000	58
Aladdin Coal and Coke Co. Aladdin, ...	Drift, ...	Non-gas., .	Fan, ...	10.0	4.0	2.5	100	.4	Brazil, ...	Gas,.........	..	2	40,000	19,800	42,000	113

TABLE I.—Continued

Names of Operators and Mines	Kind of opening	Gaseous or non-gaseous	Method of ventilation	Diameter of fan in feet and inches	Width of blades in feet and inches	Depth of blades in feet and inches	Number of revolutions per minute	Water gauge developed—in inches	Name of fan	Power used	Area of furnace bars in square feet	Number of splits of air currents	Number of cubic feet of air per minute entering the mine at inlet	Total number of cubic feet of air per minute circulating in all the splits	Number of cubic feet of air per minute passing out at outlet	Number of persons employed inside
Haddon Coal Co. Haddon, ...	Drift, ...	Non-gas., .	Fan, ...	12.0	4.0	3.0	80	.7	Kenney, ...	Gas,.........	..	1	28,000	11,500	24,000	59
Gilpin Coal Co. Gilpin, ...	Drift, ...	Non-gas., .	Furnace,..	......	......	......	......	......	....	....	48	1	23,000	11,000	24,000	69
Logansport Coal Co. Bethel, ...	Drift, ...	Non-gas., .	Furnace,..	......	......	......	......	......	....	....	36	1	14,000	8,000	16,000	44
Lucesco Coal Co Lucesco, ...	Drift, ...	Non-gas., .	Fan, ...	8.0	3.6	3.8	300	.5	Robinson, ..	Electricity,.	..	1	28,000	12,500	30,000	69
Kiskiminetas Coal Co. Tunnelton, ...	Drift, ...	Non-gas., .	Fan, ...	14.0	4.0	3.0	65	.3	Pollock, ...	Steam,......	..	1	22,000	18,500	24,000	93
Blairsville Coke Co., Limited Strangford, ...	Drift, ...	Non-gas., .	Fan, ...	12.0	3.8	3.5	98	.6	Brazil, ...	Steam,......	..	2	27,500	23,000	29,000	85
Bowman Coal Co. Bowman, ...	Drift, ...	Non-gas., .	Furnace,..	......	......	......	......	......	....	....	80	1	24,000	24,000	27,000	56
Valley Coal Co. Valley, ...	Drift, ...	Non-gas., .	Fan, ...	10.0	2.10	3.0	100	.5	Brazil, ...	Electricity,.	..	1	26,000	20,000	27,500	57
Butler Junction Coal Co. Butler Junction, ...	Drift, ...	Non-gas., .	Fan, ...	14.0	4.0	4.3	80	.5	Brazil, ...	Gas,.........	..	2	22,000	12,000	23,000	60

Pine Run Coal and Coke Co. Pine Run No. 2,	Drift,	Non-gas.,	Fan,	12.0	3.8	3.6	80	.5	Brazil,	Steam,	..	1	21,500	13,600	22,500	56
Maher and Graff Coal Co. Thomas Maher,	Drift,	Non-gas.,	Furnace,	......	......	......	......	......	....	....	42	1	12,000	8,000	14,000	43
West Leechburg Steel and Tin Plate Co. West Leechburg,	Drift,	Non-gas.,	Fan,	10.0	3.0	2.6	90	.4	Brazil,	Electricity,	..	1	30,000	10,000	31,000	36
West Penn Mining Co. West Penn,	Drift,	Non-gas.,	Furnace,	......	......	......	......	......	....	....	48	1	19,800	8,000	20,000	43
Bagdad Coal and Coke Co. Bagdad,	Drift,	Non-gas.,	Fan,	12.0	3.6	3.0	75	.5	Kenney,	Gas,	..	1	23,000	12,000	24,500	44
Edri Coal Co. Edri,	Drift,	Non-gas.,	Furnace,	......	......	......	......	......	....	....	36	1	18,500	10,800	20,000	28
East Deer Coal Co. Peterson,	Drift,	Gaseous,	Fan,	8.0	3.4	3.0	225	.7	Stine,	Electricity,	..	2	24,000	15,800	26,500	41
Lewis Coal Co. Blackstone,	Drift,	Non-gas.,	Fan,	12.0	3.6	3.0	60	.4	Brazil,	Steam,	..	1	12,000	8,160	12,800	22
American Sheet and Tin Plate Co. Kirkpatrick,	Drift,	Non-gas.,	Furnace,	......	......	......	......	......	....	....	64	1	35,000	20,500	36,500	29
Kier Fire Brick Co. Kier,	Drift,	Non-gas.,	Fan,	12.0	3.5	3.2	60	.5	Brazil,	Steam,	..	1	20,000	7,500	21,500	9
Buffalo Creek Coal and Brick Co. Clark,	Drift,	Non-gas.,	Fan,	7.0	2.0	3.0	150	.3	Stine,	Steam,	..	2	23,000	15,000	24,000	28
George E. Boyd Coal Co. Elizabeth,	Drift,	Non-gas.,	Furnace,	......	......	......	......	......	....	....	25	1	7,000	5,000	8,000	7
Boyd Brothers Coal Co. Boyd,	Drift	Non-gas.,	Fan,	5.0	1.0	2.0	300	.5	Stine,	Steam,	..	1	12,800	8,000	13,000	32
Provident Coke and Mining Co. Provident No. 1,	Drift,	Non-gas.,	Fan,	7.0	1.4	2.5	100	.5	Stine,	Steam,	..	1	18,000	10,800	20,000	8

TABLE J.—Mines using coal cutting machines, power used, geological and local names of seams, thickest and thinnest seams where machines are used, and the approximate number of tons produced by machines

Names of Operators	Names of Mines	Kind of opening	Gaseous or non-gaseous	Number of mining machines used	Power used by machines	Geological and local names of seams	Average thickness in inches	Height of Seam in Inches		Approximate number of tons produced by machines
								Thickest	Thinnest	
Ford Collieries Co.,	Benjamin,	Shaft,	Gaseous,	6	Electricity,	Freeport,	78	80	76	485,533
	Francis,	Shaft,	Gaseous,	5						430,624
Totals,				11			......	......	......	916,157
Bessemer Coal and Coke Co.,	Bessemer No. 1,	Shaft,	Gaseous,	11	Electricity,	Twin Freeport,	84	96	72	435,460
Saltsburg Coal Co.,	Foster No. 1,	Drift,	Non-gas.,	9	Compressed air,	Pittsburgh,	69	78	60	11,320
	Foster No. 2,			10	Electricity,					415,705
	Foster No. 3,			..						
Totals,				19			......	......	......	427,025
Allegheny Coal Co.,	Harwick,	Shaft,	Gaseous,	4	Electricity,	Upper Freeport,	66	84	48	102,986
Valley Camp Coal Co.,	Valley Camp,	Drift,	Gaseous,	6	Electricity,	Freeport,	80	86	74	410,322
Cornell Coal Co.,	Cornell,	Drift,	Gaseous,	4	Electricity,	Upper and Lower Freeport,	72	74	70	351,473
McFetridge Brothers,	Hite,	Drift,	Gaseous,	4	Electricity,	Upper and Lower Freeport,	66	72	60	221,571
Superior Fuel Co.,	Superior No. 1,	Shaft,	Gaseous,	15	Compressed air,	Upper Freeport,	78	84	72	232,946
Pittsburgh Plate Glass Co.,	Creighton,	Drift,	Gaseous,	7	Electricity,	Freeport,	66	84	48	220,985
Keystone Coal Co.,	Mooween No. 1,	Drift,	Non-gas.,	11	Electricity,	Upper Freeport,	42	44	40	209,544
Cochran Coal Co.,	Cochran No. 1,	Drift,	Non-gas.,	11	Electricity,	Upper Freeport,	52	60	44	184,025

Pennsylvania Salt Manufacturing Co.,	Natrona No. 1, Natrona No. 2.	Drift, Drift,	Non-gas., Non-gas.,	7 2	Electricity, Electricity,	Upper Freeport, Upper Freeport,	48 39	51 42	45 36	171,841 25,099
Totals,				9						196,940
Pine Run Co.,	Lewis,	Drift,	Gaseous,	8	Electricity,	Upper Freeport,	42	44	40	179,840
Roaring Run Mining Co.,	Roaring Run No. 1,	Drift,	Non-gas.,	9	Electricity,	Upper Freeport,	54	66	42	183,284
Mitchell-Watson Coal and Coke Co.,	Mitchell-Watson No. 1,	Drift,	Non-gas.,	1 5	Compressed air, Electricity,	Upper Freeport,	40	44	36	41,323 82,646
Totals,				6						123,969
United States Sewer Pipe Co.,	Johnetta No. 2,	Shaft,	Gaseous,	8	Electricity,	Freeport,	36	40	32	120,000
Howard Gas Coal Co.,	Mt. Gray,	Drift,	Non-gas.,	15 3	Compressed air, Electricity,	Pittsburgh,	72	78	66	72,867 36,434
Totals,				18						109,301
Armstrong County Coal Co.,	Armstrong,	Drift,	Non-gas.,	20	Compressed air,	Upper Freeport,	44	48	40	103,932
Paulton Coal Mining Co.,	Paulton,	Drift,	Gaseous,	8 2	Compressed air, Electricity,	Upper Freeport,	42	44	40	57,678 34,400
Totals,				10						92,078
Maher Coal and Coke Co.,	Maher No. 4,	Drift,	Non-gas.,	4	Electricity,	Upper Freeport,	42	48	36	49,459
Kerr Coal Co.,	Kerr No. 8,	Drift,	Non-gas.,	6	Electricity,	Upper Freeport,	42	48	36	94,042
Raridan Coal Co.,	Raridan,	Drift,	Non-gas.,	5	Compressed air,	Upper Freeport,	40	44	36	92,383
Dalliba Coal Co.,	Dalliba,	Drift,	Gaseous,	5 3	Compressed air, Electricity,	Upper Freeport,	43	56	30	17,166 60,084
Totals,				8						77,250
Ben Franklin Coal Co.,	Braeburn,	Drift,	Non-gas.,	5	Electricity,	Upper Freeport,	48	54	42	84,877
Leechburg Coal and Coke Co.,	Riverview,	Drift,	Gaseous,	1 8	Compressed air, Electricity,	Upper Freeport,	42	44	40	1,550 55,090
Totals,				9						56,640

TABLE J — Continued

Names of Operators	Names of Mines	Kind of opening	Gaseous or non-gaseous	Number of mining machines used	Power used by machines	Geological and local names of seams	Average thickness in inches	Height of Seam in Inches		Approximate number of tons produced by machines
								Thickest	Thinnest	
Logansport Coal Co., ...	Bethel, ...	Drift, ...	Non-gas., .	5	Compressed air, .	Freeport, ...	40	42	38	62,002
Kiskiminetas Coal Co., ...	Tunnelton, ...	Drift, ...	Non-gas., .	6	Electricity, ...	Upper Freeport, ..	40	48	32	59,584
Blairsville Coke Co., Limited, ...	Strangford, ...	Drift, ...	Non-gas., .	15	Compressed air, .	Lower Freeport, ..	42	48	36	59,435
Valley Coal Co., ...	Valley, ...	Drift, ...	Non-gas., .	8	Electricity, ...	Upper Freeport, ..	36	54	26	48,886
West Penn Mining Co., ...	West Penn, ...	Drift, ...	Non-gas., .	8	Electricity, ...	Upper Freeport, ..	42	48	36	35,243
East Deer Coal Co., ...	Peterson, ...	Drift, ...	Gaseous, ..	2	Electricity, ...	Freeport, ...	60	72	42	29,303
Grand totals, ...	....	....	....	262	....	....	......	......	......	5,570,942

TABLE 1.—Operators, Location of Mines, Railroads, etc.

Names of Operators and Mines	County	Name of General Superintendent	Post Office	Name of Superintendent	Post Office	Railroad to Mine
Ford Collieries Co. Benjamin, Francis, Berry No. 3,*	Allegheny,	A. R. Pollock,	Butler,	W. D. Thomas,	Curtisville,	B. and L. E.
Bessemer Coal and Coke Co. Bessemer No. 1,	Allegheny,	F. S. Love,	Russellton,	J. D. Bart,	Russellton,	B. and L. E.
Saltsburg Coal Co. Foster Nos. 1, 2 and 3,	Indiana,	L. W. Hicks,	Leechburg,	Thomas Adams,	Avonmore,	Penna., Conemaugh Div.
Allegheny Coal Co. Harwick,	Allegheny,	P. Townsend,	Cleveland, Ohio,	George S. Greene,	Cheswick,	Penna., Conemaugh Div. and B. and L. E.
Valley Camp Coal Co. Valley Camp,	Westmoreland,	H. E. Kinloch,	Parnassus,	John McVicker,	Parnassus,	Penna., B. and A. V. Div.
Cornell Coal Co. Cornell,	Allegheny,	W. A. Iseman,	Hite,	George W. Smith,	Hite,	Penna., Conemaugh Div.
McFetridge Brothers Hite,	Allegheny,	George E. McFetridge	Creighton,	George H. McFetridge	Creighton,	Penna., Conemaugh Div.
Superior Fuel Co. Superior No. 1,	Allegheny,	L. B. Lewis,	Greensburg,	G. A. Hoerr,	Russellton,	B. and L. E.
Pittsburgh Plate Glass Co. Creighton,	Allegheny,	Jesse K. Johnston,	Creighton,	Charles E. Craig,	Creighton,	Penna., Conemaugh Div.
Keystone Coal Co. Mooween Nos. 1 and 2,*	Westmoreland,	W. O. Houck,	Meyersdale,	Edward Bytheway,	Mooween,	Penna., Conemaugh Div.
Cochran Coal Co. Cochran No. 1,	Westmoreland,	W. H. H. Miller,	Salina,	W. H. H. Miller,	Salina,	Penna., Conemaugh Div.
Avonmore Coal and Coke Co. Avonmore,	Armstrong,	L. W. Hicks,	Leechburg,	Thomas Adams,	Avonmore,	Penna., Conemaugh Div.
Pennsylvania Salt Manufacturing Co. Natrona Nos. 1 and 2,	Allegheny,	E. E. Armstrong,	Natrona,	A. A. Mitchell,	Natrona,	Penna., Conemaugh Div.

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*New.

TABLE 1.—Continued

Names of Operators and Mines	County	Name of General Superintendent	Post Office	Name of Superintendent	Post Office	Railroad to Mine
Pine Run Co. Lewis,	Westmoreland,	L. W. Hicks,	Leechburg,	W. T. Lace,	Vandergrift,	Penna., Conemaugh Div.
Roaring Run Mining Co. Roaring Run Nos. 1 and 2,†	Westmoreland,	F. M. Graff,	Blairsville,	Ernest Fletcher,	Saltsburg,	Penna., Conemaugh Div.
Conemaugh Coal Co. Conemaugh,	Indiana,	F. M. Graff,	Blairsville,	Ernest Fletcher,	Saltsburg,	Penna., Conemaugh Div.
West Penn Coal Mining Co. West Penn No. 1,	Armstrong,	Edward I. Haupt,	Apollo,	Edward I. Haupt,	Apollo,	Penna., Conemaugh Div.
Mitchell-Watson Coal and Coke Co. Mitchell-Watson Nos. 1 and 2*	Indiana,	James P. Watson,	Saltsburg,	Charles S. Ray,	Saltsburg,	Penna., Conemaugh Div.
United States Sewer Pipe Co. Johnetta Nos. 1‡ and 2,	Armstrong,	J. E. Stewart,	Johnetta,	J. E. Stewart,	Johnetta,	Penna., B. and A. V. Div.
Allegheny Coal and Coke Co. Avenue,	Allegheny,	L. W. Hicks,	Leechburg,	Norman Adams,	Brackenridge,	Penna., Conemaugh Div.
Howard Gas Coal Co. Mt. Gray,	Westmoreland,	Howard C. Patton,	Greensburg,	George Weightman,	Saltsburg,	Penna., Conemaugh Div.
Armstrong County Coal Co. Armstrong,	Armstrong,	G. H. Putman,	Pittsburgh,	C. H. Pierce,	Leechburg,	Penna., Conemaugh Div.
Paulton Coal Mining Co. Paulton,	Westmoreland,	L. W. Hicks,	Leechburg,	W. T. Lace,	Vandergrift	Penna., Conemaugh Div.
Maher Coal and Coke Co. Maher No. 4,	Armstrong,	Thomas Maher,	Pittsburgh,	R. Campbell Maher,	Leechburg,	Penna., Conemaugh Div.
Kerr Coal Co. Kerr No. 8,	Butler,	R. A. Steim,	Freeport,	H. C. Scott,	Freeport,	Penna., Conemaugh Div.
Raridan Coal Co. Raridan,	Armstrong,	J. H. Thompson,	Pittsburgh,	H. J. Christy,	Logansport,	Penna., B. and A. V. Div.

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*New.
†Idle.
‡Abandoned.

Apollo Coal Co. Northwest,	Westmoreland,	H. C. Burket,	Greensburg,	H. H. Tussey,	Salina,	Penna., Conemaugh Div.
Dalliba Coal Co. Dalliba,	Westmoreland,	R. B. Smith,	Blairsville,	R. B. Smith,	Blairsville,	Penna., Conemaugh Div.
Ben Franklin Coal Co. Braeburn, Metcalf,†	Westmoreland,	M. J. McQuade,	Freeport,	Thomas P. McQuade,	Braeburn,	Penna., B. and A. V. Div.
Leechburg Coal and Coke Co. Riverview,	Westmoreland,	L. W. Hicks,	Leechburg,	William Gilson,	Leechburg,	Penna., Conemaugh Div.
Aladdin Coal and Coke Co. Aladdin,	Armstrong,	G. H. Putman,	Pittsburgh,	C. H. Pierce,	Leechburg,	Penna., B. and A. V. Div.
Haddon Coal Co. Haddon,	Armstrong,	L. W. Hicks,	Leechburg,	William Gilson,	Leechburg,	Penna., Conemaugh Div.
Gilpin Coal Co. Gilpin,	Armstrong,	L. W. Hicks,	Leechburg,	William Gilson,	Leechburg,	Penna., Conemaugh Div.
Logansport Coal Co. Bethel,	Armstrong,	R. C. McLean,	Logansport,	R. C. McLean,	Logansport,	Penna., B. and A. V. Div.
Lucesco Coal Co. Lucesco,	Westmoreland,	H. C. Patton,	Greensburg,	H. C. Patton,	Greensburg,	Penna., A. V. Div.
Kiskiminetas Coal Co. Tunnelton,	Indiana,	F. M. Graff,	Blairsville,	Ernest Fletcher,	Saltsburg,	Penna., Conemaugh Div.
Blairsville Coke Co., Limited Strangford,	Indiana,	F. M. Graff,	Blairsville,	Ernest Fletcher,	Saltsburg,	Penna., Conemaugh Div.
Bowman Coal Co. Bowman,	Indiana,	S. J. Robinson,	Saltsburg,	S. J. Robinson,	Saltsburg,	Penna., Conemaugh Div.
Valley Coal Co. Valley,	Westmoreland,	Joseph G. Beale,	Leechburg,	E. H. Beale,	Leechburg,	Penna., Conemaugh Div.
Butler Junction Coal Co. Butler Junction,	Allegheny,	L. W. Hicks,	Leechburg,	William Gilson,	Leechburg,	Penna., Conemaugh Div.
Pine Run Coal and Coke Co. Pine Run Nos. 1† and 2,	Westmoreland,	L. W. Hicks,	Leechburg,	William Gilson,	Leechburg,	Penna., Conemaugh Div.
Maher and Graff Coal Co. Thomas Maher,	Westmoreland,	Thomas Maher,	Blairsville,	Thomas Maher,	Blairsville,	Penna., Conemaugh Div.
West Leechburg Steel and Tin Plate Co. West Leechburg,	Westmoreland,	H. W. McKallip,	Leechburg,	H. W. McKallip,	Leechburg,	Penna., Conemaugh Div.

†Idle.

TABLE 1.—Continued

Names of Operators and Mines	County	Name of General Superintendent	Post Office	Name of Superintendent	Post Office	Railroad to Mine
West Penn Mining Co. West Penn,	Westmoreland,	L. W. Hicks,	Leechburg,	William Gilson,	Leechburg,	Penna., Conemaugh Div.
Bagdad Coal and Coke Co. Bagdad,	Armstrong,	L. W. Hicks,	Leechburg,	William Gilson,	Leechburg,	Penna., Conemaugh Div.
Edri Coal Co. Edri,	Indiana,	L. W. Hicks,	Leechburg,	Thomas Adams,	Avonmore,	Penna., Conemaugh Div.
East Deer Coal Co. Peterson,	Allegheny,	George H. Summers,	New Kensington,	George H. Summers,	New Kensington,	Penna., Conemaugh Div.
Lewis Coal Co. Blackstone,	Westmoreland,	L. W. Hicks,	Leechburg,	William Gilson,	Leechburg,	Penna., Conemaugh Div.
American Sheet and Tin Plate Co. Kirkpatrick,	Armstrong,	A. N. Beale,	Vandergrift,	H. E. Bruce,	Leechburg,	Penna., Conemaugh Div.
Kier Fire Brick Co. Kier,§	Westmoreland,	H. W. Whitesell,	Avonmore,	W. M. Larimer,	Saltsburg,	Penna., Conemaugh Div.
Buffalo Creek Coal and Brick Co. Clark,	Butler,	John J. Rattigan,	Homestead,	John J. Rattigan,	Homestead,	Butler Branch of Conemaugh Div.
George E. Boyd Coal Co. Elizabeth,	Westmoreland,	George E. Boyd,	Tarentum,	George E. Boyd,	Tarentum,	Penna., Conemaugh Div.
Boyd Brothers Boyd,	Westmoreland,	George E. Boyd,	Tarentum,	George E. Boyd,	Tarentum,	Penna., A. V. Div.
Provident Coke and Mining Co. Provident No. 1,	Armstrong,	A. R. Miller,	Connellsville,	Carl F. Keck,	Kelly Station,	Penna., A. V. Div.
Majestic Coal Co. Majestic,†	Armstrong,	William Smith,	Ebensburg,			Penna., A. V. Div.
Glendale Coal Co. Glendale Nos. 1† and 2,†	Armstrong,	J. C. Reed,	Meyersdale,			Penna., A. V. Div.
Hamilton Coal Mining Co. Crag Dell,†	Westmoreland,			Grant Linderman,	New Kensington,	Penna., A. V. Div.

†Idle. §Not under the law.

TABLE 2.—Number of tons of coal mined and tons of coke produced, number of days worked, number of persons employed, number killed and injured, quantity of powder, dynamite and permissible explosives used, etc.

Names of Operators and Mines	County	Number of tons of coal shipped to market	Number of tons used at mines for steam and heat	Number of tons sold to local trade and used by employes	Number of tons used in manufacture of coke	Total production of coal in tons	Total production of coke in tons	Number of coke ovens	Number of days worked	Number of employes	Number of fatal accidents	Number of non-fatal accidents	Explosives			Number of horses and mules
													Number of pounds of powder used	Number of pounds of dynamite used	Number of pounds of permissible explosives used	
Ford Collieries Co.																
Benjamin, ...	Allegheny, ...	475,810	7,920	1,803	....	485,533	....	......	301	308	1	....	....	350	63,400	......
Francis, ...		422,496	7,920	209	....	430,624	....	......	300	273	....	2	....	175	54,200	......
Totals, ...	....	898,306	15,840	2,012	....	916,157	....	......	......	581	1	2	....	525	117,600	......
Bessemer Coal and Coke Coke Co.																
Bessemer No. 1, ...	Allegheny, ...	567,958	20,116	2,328	....	590,402	....	......	293	478	6	1	....	....	82,200	23
Saltsburg Coal Co.																
Foster Nos. 1, 2 and 3,	Indiana, ...	495,070	8,400	....	....	503,470	....	......	292	438	1	1	122,000	1,250	....	16
Allegheny Coal Co.																
Harwick, ...	Allegheny, ...	429,089	9,680	1,745	....	440,514	....	......	218	386	3	1	....	....	48,500	42
Valley Camp Coal Co.																
Valley Camp, ...	Westmoreland,	422,057	3,207	150	....	425,414	....	......	290	309	1	8	....	....	50,200	8
Cornell Coal Co.																
Cornell, ...	Allegheny, ...	280,922	9,889	60,662	....	351,473	....	......	300	258	1	3	....	....	22,000	14
McFetridge Brothers																
Hite, ...	Allegheny, ...	232,115	2,625	27,627	....	262,367	....	......	295	214	1	1	....	....	27,000	19
Superior Fuel Co.																
Superior No. 1	Allegheny, ...	251,850	7,882	324	....	260,056	....	......	284	199	....	1	....	....	42,623	28

TABLE 2.—Continued

Names of Operators and Mines	County	Number of tons of coal shipped to market	Number of tons used at mines for steam and heat	Number of tons sold to local trade and used by employes	Number of tons used in manufacture of coke	Total production of coal in tons	Total production of coke in tons	Number of coke ovens	Number of days worked	Number of employes	Number of fatal accidents	Number of non-fatal accidents	Explosives: Number of pounds of powder used	Explosives: Number of pounds of dynamite used	Explosives: Number of pounds of permissible explosives used	Number of horses and mules
Pittsburgh Plate Glass Co.																
Creighton, ...	Allegheny, ...	247,387	1,716	561	....	249,664	....	......	296	213	....	....	....	....	34,950	......
Keystone Coal Co.																
Mooween No. 1, ...	Westmoreland, .	206,956	2,300	287	....	209,543	....	......	295	128	1	....	51,125	1,300	....	3
Cochran Coal Co.																
Cochran No. 1, ...	Westmoreland, .	201,713	3,158	1,583	....	206,454	....	......	300	176	2	....	....	360	18,000	......
Avonmore Coal and Coke Co.																
Avonmore, ...	Armstrong, ...	196,573	2,000	....	....	198,573	....	......	308	166	....	1	45,000	....	....	7
Pennsylvania Salt Manufacturing Co.																
Natrona No. 1, ...	Allegheny, ...	167,446	1,974	2,421	....	171,841	....	8	300	144	....	4	....	....	16,828	......
Natrona No. 2, ...		25,099	....	....	....	25,099	....	......	302	54	....	....	....	3,000	2,000	......
Totals, ...	....	192,545	1,974	2,421	....	196,940	....	8	......	198	....	4	....	3,000	18,828	......
Pine Run Co.																
Lewis, ...	Westmoreland, .	188,648	4,400	25	....	193,073	....	......	298	104	....	....	40,000	800	....	......
Roaring Run Mining Co.																
Roaring Run No. 1, ...	Westmoreland, .	179,284	4,000	....	....	183,284	....	......	291	176	....	....	....	....	25,500	......
Conemaugh Coal Co.																
Conemaugh, ...	Indiana, ...	133,845	4,000	....	....	137,845	....	......	294	148	....	....	....	1,500	45,000	13

West Penn Coal Mining Co. West Penn No. 1, ...	Armstrong, ...	129,258	2,800	....	....	132,058	....	......	295	97	....	....	....	25	12,000	......
Mitchell-Watson Coal and Coke Co. Mitchell-Watson No. 1,	Indiana, ...	127,772	2,989	409	....	131,170	....	......	305	125	....	1	16,500	200	....	5
United States Sewer Pipe Co. Johnetta No. 2, ...	Armstrong, ...	89,964	14,828	15,208	....	120,000	....	25	311	129	1	....	....	....	12,000	......
Allegheny Coal and Coke Co. Avenue, ...	Allegheny, ...	109,266	200	....	....	109,466	....	......	311	98	....	....	32,500	1,250	....	......
Howard Gas Coal Co. Mt. Gray, ...	Westmoreland, .	105,640	3,089	572	....	109,301	....	......	288	118	1	....	....	....	9,600	8
Armstrong County Coal Co. Armstrong, ...	Armstrong, ...	102,066	2,776	40	....	104,882	....	......	286	111	....	....	21,200	25	....	11
Paulton Coal Mining Co. Paulton, ...	Westmoreland, .	94,708	2,050	....	....	96,758	....	......	289	122	....	....	22,500	200	....	6
Maher Coal and Coke Co. Maher No. 4, ...	Armstrong, ...	95,695	....	218	....	95,913	....	......	303	113	....	....	....	....	....	3
Kerr Coal Co. Kerr No. 8, ...	Butler, ...	91,584	2,114	1,569	....	95,267	....	......	297	86	....	1	5,000	50	....	1
Raridan Coal Co. Raridan, ...	Armstrong, ...	90,683	1,500	200	....	92,383	....	......	260	100	....	....	20,000	10	....	7
Apollo Coal Co. Northwest, ...	Westmoreland, .	89,267	465	150	....	89,882	....	......	274	111	....	....	1,200	200	....	10
Dalliba Coal Co. Dalliba, ...	Westmoreland, .	81,833	4,000	....	....	85,833	....	......	304	91	....	....	15,200	1,000	1,200	2
Ben Franklin Coal Co. Braeburn, ...	Westmoreland, .	83,451	1,164	262	....	84,877	....	......	291	84	....	....	4,243	100	....	......
Leechburg Coal and Coke Co. Riverview, ...	Westmoreland, .	73,320	1,500	150	....	74,970	....	......	298	74	....	....	26,000	....	....	6
Aladdin Coal and Coke Co. Aladdin, ...	Armstrong, ...	71,257	174	90	....	71,521	....	......	293	120	....	....	32,000	400	....	10

TABLE 2.—Continued

Names of Operators and Mines	County	Number of tons of coal shipped to market	Number of tons used at mines for steam and heat	Number of tons sold to local trade and used by employes	Number of tons used in manufacture of coke	Total production of coal in tons	Total production of coke in tons	Number of coke ovens	Number of days worked	Number of employes	Number of fatal accidents	Number of non-fatal accidents	Explosives			Number of horses and mules
													Number of pounds of powder used	Number of pounds of dynamite used	Number of pounds of permissible explosives used	
Haddon Coal Co. Haddon, ...	Armstrong, ...	64,560	150	....	....	64,710	....	.....	308	66	....	....	18,000	....	....	7
Gilpin Coal Co. Gilpin, ...	Armstrong, ...	61,239	800	25	....	62,064	....	.....	304	76	....	....	17,000	....	....	8
Logansport Coal Co. Bethel, ...	Armstrong, ...	60,350	1,589	63	....	62,002	....	.....	263	52	....	....	....	....	....	10
Lucesco Coal Co. Lucesco, ...	Westmoreland, .	60,565	814	....	....	61,379	....	.....	290	78	....	1	2,500	75	....	9
Kiskiminetas Coal Co. Tunnelton, ...	Indiana, ...	57,084	2,500	....	....	59,584	....	.....	286	111	1	....	....	....	17,500	.....
Blairsville Coke Co., Limited Strangford, ...	Indiana, ...	57,635	1,800	....	....	59,435	....	.....	300	90	....	1	....	....	....	7
Bowman Coal Co. Bowman, ...	Indiana, ...	58,561	346	457	....	59,364	....	.....	302	63	....	....	9,250	125	....	8
Valley Coal Co. Valley, ...	Westmoreland, .	53,336	25	25	....	53,386	....	.....	285	64	....	....	8,425	200	....	7
Butler Junction Coal Co. Butler Junction, ...	Allegheny, ...	50,754	100	....	....	50,854	....	.....	308	67	....	2	15,000	100	....	7

Pine Run Coal and Coke Co. Pine Run No. 2, ...	Westmoreland, .	48,121	500	25	....	48,646	....	......	291	63	....	....	13,000	200	....	4
Maher and Graff Coal Co. Thomas Maher, ...	Westmoreland, .	47,743	....	....	....	47,743	....	......	291	49	....	....	5,000	....	....	4
West Leechburg Steel and Tin Plate Co. West Leechburg, ...	Westmoreland, .	39,251	....	....	....	39,251	....	......	298	36	....	1	12,500	....	....	4
West Penn Mining Co. West Penn, ...	Westmoreland, .	36,387	100	25	....	36,512	....	......	284	50	....	2	12,000	100	....	7
Bagdad Coal and Coke Co. Bagdad, ...	Armstrong, ...	33,341	100	....	....	33,441	....	......	307	51	....	....	9,500	....	....	6
Edri Coal Co. Edri, ...	Indiana, ...	29,554	100	....	....	29,654	....	......	304	34	....	....	6,000	....	....	3
East Deer Coal Co. Peterson, ...	Allegheny, ...	29,303	....	....	....	29,303	....	......	272	48	....	....	....	....	5,057	4
Lewis Coal Co. Blackstone, ...	Westmoreland, .	26,261	100	25	....	26,386	....	......	290	28	1	....	....	....	....	4
American Sheet and Tin Plate Co. Kirkpatrick, ...	Armstrong, ...	24,006	104	....	....	24,110	....	......	257	31	....	1	9,000	....	....	4
Kier Fire Brick Co. Kier, ...	Westmoreland, .	17,200	....	....	....	17,200	....	......	309	9	....	....	....	....	....	2
Buffalo Creek Coal and Brick Co. Clark, ...	Butler, ...	5,688	50	2,335	....	8,073	....	......	288	35	....	....	2,500	375	....	2
George E. Boyd Coal Co. Elizabeth, ...	Westmoreland, .	4,500	112	....	....	4,612	....	......	161	7	....	....	5,000	....	....	1
Boyd Brothers Coal Co. Boyd, ...	Westmoreland, .	4,000	61	....	....	4,061	....	......	47	34	....	....	....	....	....	3
Provident Coke and Mining Co. Provident No. 1, ...	Armstrong, ...	686	9	138	....	833	....	......	74	20	....	....	....	....	....	4
Grand totals, ...	....	7,430,206	150,196	121,711	....	7,702,113	....	33	......	6,098	21	33	599,143	13,870	589,788	357

TABLE 2—Part 2

Names of Operators	County	Number of Boilers					Locomotives				Number of steam engines of all classes	Total horse power	Number of pumps delivering water to surface	Capacity in gallons per minute	Quantity delivered to surface per minute—gallons	Number of electric dynamos	Number of air compressors
		Cylindrical	Horse power	Tubular	Horse power	Total horse power	Gasoline	Steam	Air	Electric							
Ford Collieries Co.,	Allegheny,	......	......	10	2,000	2,000	......	......	......	17	11	1,800	2	1,200	640	4	......
Bessemer Coal and Coke Co.,	Allegheny,	......	......	8	1,200	1,200	......	......	......	6	7	2,000	3	2,600	1,200	8	......
Saltsburg Coal Co.,	Indiana,	......	......	4	600	600	......	......	......	3	5	300	5	500	400	1	1
Allegheny Coal Co.,	Allegheny,	......	......	8	1,200	1,200	......	......	......	3	13	1,260	2	600	280	2	2
Valley Camp Coal Co.,	Westmoreland,	4	600	......	......	600	......	......	......	7	2	380	1	640	440	2	......
Cornell Coal Co.,	Allegheny,	......	......	4	600	600	......	1	......	2	4	700	3	700	400	*	......
McFetridge Brothers,	Allegheny,	2	200	4	600	800	......	1	......	2	4	460	3	760	450	*	......
Superior Fuel Co.,	Allegheny,	......	......	4	600	600	......	......	......	......	6	1,190	2	530	150	......	1
Pittsburgh Plate Glass Co.,	Allegheny,	......	......	3	250	250	......	......	......	8	2	250	5	490	260	†	......
Keystone Coal Co.,	Westmoreland,	......	......	3	450	450	......	......	......	4	2	250	1	100	60	2	......
Cochran Coal Co.,	Westmoreland,	......	......	2	300	300	......	......	......	4	2	300	4	180	60	1	......
Avonmore Coal and Coke Co.,	Armstrong,	......	......	2	240	240	......	......	......	......	3	600	1	100	50	......	......
Pennsylvania Salt Manufacturing Co.,	Allegheny,	......	......	......	......	......	......	......	......	5	1	50	3	150	50	‡	......
Pine Run Co.,	Westmoreland,	......	......	2	300	300	......	......	......	3	1	100	3	300	200	1	......
Roaring Run Mining Co.,	Westmoreland,	......	......	2	300	300	......	......	......	3	2	325	2	160	100	1	......
Conemaugh Coal Co.,	Indiana,	......	......	2	230	230	......	......	......	1	3	320	2	120	100	1	......
West Penn Coal Mining Co.,	Armstrong,	2	300	......	......	300	......	......	......	4	5	250	1	100	50	1	......
Mitchell-Watson Coal and Coke Co.,	Indiana,	......	......	3	450	450	......	......	......	3	2	200	3	100	60	1	1
United States Sewer Pipe Co.,	Armstrong,	......	......	3	450	450	......	......	......	3	2	350	1	75	60	1	1
Allegheny Coal and Coke Co.,	Allegheny,	......	......	......	......	......	......	......	......	3	......	......	2	......	......	§	......
Howard Gas Coal Co.,	Westmoreland,	......	......	4	600	600	......	......	......	1	3	150	3	900	500	2	1
Armstrong County Coal Co.,	Armstrong,	......	......	4	440	440	......	......	......	......	1	50	3	360	150	......	2
Paulton Coal Mining Co.,	Westmoreland,	......	......	3	600	600	......	......	......	......	2	120	2	300	200	......	1

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*Power from Street Car Company.
†Power from Glass Company.
§Power from Steel Mill.
‡Power from Salt Works.

Maher Coal and Coke Co.,	Armstrong,										1					*	
Kerr Coal Co.,	Butler,			2	300	300				2	1	275	1	100	50	2	
Raridan Coal Co.,	Armstrong,			2	250	250					2	150	2	100	60		1
Apollo Coal Co.,	Westmoreland,			1	50	50				1	1	35	1	125	50	*	
Dalliba Coal Co.,	Westmoreland,			2	300	300				2	2	300	1	250	80	1	1
Ben Franklin Coal Co.,	Westmoreland,			2	300	300				2	1	200	1	100	50	1	
Leechburg Coal and Coke Co.,	Westmoreland,			3	450	450				1	1	150	3	150	100	1	1
Aladdin Coal and Coke Co.,	Armstrong,										1	20				‖	
Haddon Coal Co.,	Armstrong,										1	20				‖	
Gilpin Coal Co.,	Armstrong,			1	100	100							1	100	50		
Logansport Coal Co.,	Armstrong,			2	160	160					1	140	2	140	70		1
Lucesco Coal Co.,	Westmoreland,			1	70	70					1	50	1	200	150		
Kiskiminetas Coal Co.,	Indiana,			2	300	300				2	3	450	1	160	100	2	
Blairsville Coke Co., Limited,	Indiana,			2	300	300					3	300	1	130	60		2
Valley Coal Co.,	Westmoreland,			1	25	25							1	90	60		
Butler Junction Coal Co.,	Allegheny,										1	20				‖	
Pine Run Coal and Coke Co.,	Westmoreland,			1	60	60					1	150	1	100	80		
Maher and Graff Coal Co.,	Westmoreland,										1	50				†	
East Deer Coal Co.,	Allegheny,										1	50	1	100	80		
Lewis Coal Co.,	Westmoreland,			1	40	40					1	90					
American Sheet and Tin plate Co.,	Armstrong,												1	150	100		
Buffalo Creek Coal and Brick Co.,	Butler,			1	10	10					1	10	3	120	60		
Boyd Brothers Coal Co.,	Westmoreland,			1	80	80					1	12	1	50	30		
Provident Coke and Mining Co.,	Armstrong,			1	25	25					2	50					1
Totals,		8	1,100	101	14,230	15,330		2		92	111	13,917	80	13,130	7,090	30	17

*Power from Street Car Company.
†Power from Glass Company.
‖Gas.

TABLE 3.—Number of Each Class of Employes Inside and Outside of Mines

Names of Operators	County	Inside												Outside								Grand total inside and outside
		Mine foremen	Assistant mine foremen	Fire bosses	Miners	Machine runners	Machine loaders	Machine scrapers	Drivers and runners	Doorboys and helpers	Company men	All other employes	Total inside	Superintendents	Foremen	Blacksmiths and carpenters	Engineers and firemen	Coke employes	Bookkeepers and clerks	All other employes	Total outside	
Ford Collieries Co.,	Allegheny,	2	4	5	......	22	329	22	36	2	90	5	517	2	2	9	10	....	2	39	64	581
Bessemer Coal and Coke Co.,	Allegheny,	1	3	3	84	15	193	15	40	7	43	....	404	2	1	9	12	....	3	47	74	478
Saltsburg Coal Co.,	Indiana,	3	1	..	30	15	280	15	28	7	4	20	403	1	1	6	6	....	1	20	35	438
Allegheny Coal Co.,	Allegheny,	1	4	3	62	13	128	13	31	6	60	....	321	1	1	12	13	....	2	36	65	386
Valley Camp Coal Co.,	Westmoreland,	1	2	3	......	8	210	8	8	1	21	....	262	1	2	4	4	....	2	34	47	309
Cornell Coal Co.,	Allegheny,	1	2	2	......	8	171	8	16	3	17	....	228	1	1	6	7	....	3	12	30	258
McFetridge Brothers,	Allegheny,	1	2	1	26	6	95	6	16	4	30	....	187	1	....	4	4	....	3	15	27	214
Superior Fuel Co.,	Allegheny,	1	1	1	26	15	69	15	20	3	10	7	168	1	1	4	7	....	1	17	31	199
Pittsburgh Plate Glass Co.,	Allegheny,	1	1	2	16	9	118	9	14	....	16	....	186	1	1	4	4	....	2	15	27	213
Keystone Coal Co.,	Westmoreland,	1	2	..	......	11	78	11	4	2	7	....	116	1	1	3	4	....	3	......	12	128
Cochran Coal Co.,	Westmoreland,	1	1	..	22	11	78	11	....	2	34	....	160	1	....	3	3	....	1	8	16	176
Avonmore Coal and Coke Co.,	Armstrong,	1	1	..	135	....	......	....	9	3	2	2	153	1	....	2	3	....	1	6	13	166
Pennsylvania Salt Manufacturing Co.,	Allegheny,	2	2	..	......	9	104	9	10	5	9	20	170	1	....	5	1	....	2	19	28	198
Pine Run Co.,	Westmoreland,	1	1	2	4	10	55	10	3	2	2	2	92	1	....	3	3	....	1	4	12	104
Roaring Run Mining Co.,	Westmoreland,	1	1	..	......	9	108	9	8	....	4	....	140	1	....	5	2	....	2	26	36	176
Conemaugh Coal Co.,	Indiana,	1	1	..	113	....	......	....	9	1	....	5	130	1	....	2	3	....	2	5	13	143
West Penn Coal Mining Co.,	Armstrong,	1	..	1	67	....	......	....	4	2	5	....	80	1	....	2	2	....	1	11	17	97
Mitchell-Watson Coal and Coke Co.,	Indiana,	1	..	..	......	9	77	9	2	....	7	....	105	1	....	4	3	....	1	11	20	125
United States Sewer Pipe Co.,	Armstrong,	1	..	1	......	8	66	8	4	....	8	22	118	1	....	3	1	....	1	5	11	129
Allegheny Coal and Coke Co.,	Allegheny,	1	1	..	10	4	60	4	6	....	3	....	89	1	1	3	....	....	1	3	9	98
Howard Gas Coal Co.,	Westmoreland,	1	..	..	......	15	50	15	8	....	6	2	97	1	....	4	3	....	1	12	21	118
Armstrong County Coal Co.,	Armstrong,	1	1	..	4	12	48	12	9	1	10	....	98	1	....	1	3	....	1	7	13	111
Paulton Coal Mining Co.,	Westmoreland,	1	1	2	5	15	60	15	6	3	1	2	111	1	....	2	3	....	1	4	11	122
Maher Coal and Coke Co.,	Armstrong,	1	..	..	2	4	83	4	4	....	6	....	104	1	....	2	....	....	....	6	9	113
Kerr Coal Co.,	Butler,	1	1	..	5	6	51	6	1	....	3	3	77	1	1	2	4	....	1	......	9	86
Raridan Coal Co.,	Armstrong,	1	..	..	6	9	54	9	6	1	2	1	89	1	....	2	3	....	....	5	11	100

Apollo Coal Co.,	Westmoreland,	1	1	..	75	....	......	....	11	3	4	....	95	1	....	2	2	....	....	11	16	111
Dalliba Coal Co.,	Westmoreland,	1	..	1	20	5	40	5	4	1	4	....	81	1	....	2	1	....	....	6	10	91
Ben Franklin Coal Co.,	Westmoreland,	1	..	..	......	5	55	5	4	1	2	....	78	1	....	1	2	....	1	6	11	84
Leechburg Coal and Coke Co.,	Westmoreland,	1	..	1	10	4	30	4	4	2	1	2	59	1	....	3	4	....	1	6	15	74
Aladdin Coal and Coke Co.,	Armstrong,	1	1	..	92	....	......	....	8	....	11	....	113	1	....	1	....	....	....	5	7	120
Haddon Coal Co.,	Armstrong,	1	..	..	50	....	......	....	4	2	1	1	59	1	....	1	....	....	1	4	7	66
Gilpin Coal Co.,	Armstrong,	1	..	..	60	....	......	....	4	2	1	1	69	1	....	1	....	....	1	4	7	76
Logansport Coal Co.,	Armstrong,	1	1	..	......	5	25	5	7	....	....	....	44	1	....	1	2	....	....	4	8	52
Lucesco Coal Co.,	Westmoreland,	1	..	..	50	....	......	....	10	....	6	2	69	1	....	1	2	....	1	4	9	78
Kiskiminetas Coal Co.,	Indiana,	1	..	..	69	5	......	5	....	1	8	4	93	1	....	3	2	....	2	10	18	111
Blairsville Coke Co., Limited,	Indiana,	1	1	..	......	15	47	15	6	....	....	....	85	1	....	1	2	....	1	......	5	90
Bowman Coal Co.,	Indiana,	1	..	..	46	....	......	....	7	....	2	....	56	1	....	1	....	....	....	5	7	63
Valley Coal Co.,	Westmoreland,	1	..	..	4	3	38	3	5	....	8	....	57	1	....	1	....	....	1	4	7	64
Butler Junction Coal Co.,	Allegheny,	1	..	..	55	....	......	....	3	....	....	1	60	1	....	1	....	....	1	4	7	67
Pine Run Coal and Coke Co.,	Westmoreland,	1	..	..	50	....	......	....	4	....	....	1	56	1	....	1	....	....	1	4	7	63
Maher and Graff Coal Co.,	Westmoreland,	1	..	..	38	....	......	....	2	....	2	....	48	1	....	1	1	....	1	2	6	49
West Leechburg Steel and Tin Plate Co.,	Westmoreland,	1	..	..	32	....	......	....	3	....	....	....	36	....	....	....	....	....	....	......	......	36
West Penn Mining Co.,	Westmoreland,	1	..	..	2	6	25	6	2	....	....	1	43	1	....	1	11	....	1	4	7	50
Bagdad Coal and Coke Co.,	Armstrong,	1	..	..	40	....	......	....	2	....	....	1	44	1	....	1	....	....	1	4	7	51
Edri Coal Co.,	Indiana,	1	..	..	25	....	......	....	1	....	....	1	28	1	....	1	....	....	1	3	6	34
East Deer Coal Co.,	Allegheny,	1	..	2	......	3	21	3	5	....	6	....	41	1	....	1	1	....	1	3	7	48
Lewis Coal Co.,	Westmoreland,	1	..	..	20	....	......	....	1	....	....	....	22	1	....	1	....	....	1	3	6	28
American Sheet and Tin Plate Co.,	Armstrong,	1	..	..	24	....	......	....	4	....	....	....	29	1	1	....	....	....	....	......	2	31
Kier Fire Brick Co.,	Westmoreland,	1	..	..	7	....	......	....	1	....	....	....	9	....	....	....	....	....	....	......	......	9
Buffalo Creek Coal and Brick Co.,	Butler,	1	..	..	24	....	......	....	2	....	1	....	28	1	....	1	1	....	1	3	7	35
George E. Boyd Coal Co.,	Westmoreland,	1	..	..	5	....	......	....	1	....	....	....	7	....	....	....	....	....	....	......	......	7
Boyd Brothers Coal Co.,	Westmoreland,	1	..	..	......	1	25	1	2	1	1	....	32	1	....	....	1	....	....	......	2	34
Provident Coke and Mining Co.,	Armstrong,	1	..	..	4	....	......	....	1	....	2	....	8	1	....	....	3	....	....	8	12	20
Totals,		58	37	30	1,419	295	2,871	295	410	68	455	106	6,044	53	14	134	1 2	....	57	474	864	6,908

TABLE 3.—Part 2

Names of Operators	County	Average Number of Days Worked												
		January	February	March	April	May	June	July	August	September	October	November	December	Total
Ford Collieries Co.,	Allegheny,	27	24	24	26	25	25	26	26	25	26	23	24	301
Bessemer Coal Co.,	Allegheny,	27	21	22	24	26	25	26	25	25	27	24	21	293
Saltsburg Coal Co.,	Indiana,	25	23	24	24	26	24	25	24	24	26	24	23	292
Allegheny Coal Co.,	Allegheny,	25	24	21	22	19	3	24	23	24	4	6	23	218
Valley Camp Coal Co.,	Westmoreland,	26	21	19	25	25	24	26	24	25	26	24	25	290
Cornell Coal Co.,	Allegheny,	27	23	23	26	26	24	26	25	25	27	24	24	300
McFetridge Brothers,	Allegheny,	26	23	23	26	24	25	26	26	25	27	24	20	295
Superior Coal Co.,	Allegheny,	26	23	23	24	25	24	24	25	24	26	22	18	284
Pittsburgh Plate Glass Co.,	Allegheny,	27	23	22	19	26	25	26	26	26	27	24	25	296
Keystone Coal Co.,	Westmoreland,	26	23	24	22	26	25	26	26	35	26	25	21	295
Cochran Coal Co.,	Westmoreland,	25	24	25	25	27	25	25	26	25	27	23	23	300
Avonmore Coal Co.,	Armstrong,	25	24	26	26	27	25	26	26	26	27	25	25	308
Pennsylvania Salt Manufacturing Co.,	Allegheny,	27	24	25	25	24	25	23	25	25	27	25	26	301
Pine Run Coal Co.,	Westmoreland,	27	24	26	19	27	25	25	26	22	27	24	26	298
Roaring Run Mining Co.,	Westmoreland,	25	23	25	24	25	24	24	25	24	23	24	25	291
Conemaugh Coal Co.,	Indiana,	25	23	24	25	26	24	25	25	24	25	24	24	294
West Penn Coal Mining Co.,	Armstrong,	23	25	20	25	26	25	26	26	25	26	25	24	295
Mitchell-Watson Coal and Coke Co.,	Indiana,	26	24	25	26	26	25	25	26	26	26	24	26	305
United States Sewer Pipe Co.,	Armstrong,	27	26	26	26	27	25	27	25	25	27	23	27	311
Allegheny Coal and Coke Co.,	Allegheny,	27	24	26	26	27	25	25	27	26	27	25	26	311
Howard Gas Coal Co.,	Westmoreland,	25	24	23	25	27	24	26	26	25	26	23	14	288
Armstrong County Coal Co.,	Armstrong,	26	21	22	21	24	22	24	25	26	26	24	25	286
Paulton Coal Mining Co.,	Westmoreland,	27	24	26	7	27	25	25	26	26	27	23	26	289
Maher Coal and Coke Co.,	Armstrong,	27	24	26	25	26	25	25	25	22	26	26	26	303
Kerr Coal Co.,	Butler,	26	23	25	26	25	24	23	24	26	27	24	25	297
Raridan Coal Co.,	Armstrong,	27	24	21	18	16	21	25	23	24	25	24	12	260
Apollo Coal Co.,	Westmoreland,	25	20	21	18	24	24	24	23	23	24	24	24	274
Dalliba Coal Co.,	Westmoreland,	26	24	26	25	26	24	24	26	25	26	26	26	304
Ben Franklin Coal Co.,	Westmoreland,	26	22	26	25	26	22	23	26	22	25	23	25	291
Leechburg Coal and Coke Co.,	Westmoreland,	25	23	25	26	25	25	25	24	25	27	23	25	298
Aladdin Coal and Coke Co.,	Armstrong,	27	23	20	25	22	25	26	25	25	27	24	24	293
Haddon Coal Co.,	Armstrong,	27	24	26	26	26	25	26	26	25	27	24	26	308
Gilpin Coal Co.,	Armstrong,	27	24	25	26	25	24	26	24	26	27	24	26	304
Logansport Coal Co.,	Armstrong,	26	24	20	17	17	20	25	25	23	25	24	17	263
Lucesco Coal Co.,	Westmoreland,	23	22	26	25	26	24	24	25	23	24	24	24	290
Kiskiminetas Coal Co.,	Indiana,	22	25	23	24	23	22	24	25	24	25	24	25	286
Blairsville Coal Co., Limited,	Indiana,	26	24	25	25	25	24	25	24	26	26	24	26	300

Bowman Coal Co.,	Indiana,	26	22	26	24	27	25	26	25	26	27	23	25	302
Valley Coal Co.,	Westmoreland,	25	22	22	22	25	25	24	22	24	26	23	25	285
Butler Junction Coal Co.,	Allegheny,	27	24	25	26	26	25	26	26	26	27	24	26	308
Pine Run Coal and Coke Co.,	Westmoreland,	27	23	25	23	26	24	24	22	21	26	24	26	291
Maher and Graff Coal Co.,	Westmoreland,	27	23	25	23	26	24	24	22	21	26	24	26	291
West Leechburg Steel and Tin Plate Co.,	Westmoreland,	27	24	26	26	27	17	26	26	24	27	24	24	298
West Penn Mining Co.,	Westmoreland,	23	23	25	25	22	25	23	24	23	25	24	22	284
Bagdad Coal and Coke Co.,	Armstrong,	27	22	26	26	27	25	26	25	26	27	24	26	307
Edri Coal Co.,	Indiana,	26	23	24	26	25	25	26	26	26	27	25	25	304
East Deer Coal Co.,	Allegheny,	18	22	23	25	14	24	25	23	24	25	24	25	272
Lewis Coal Co.,	Westmoreland,	25	23	25	25	22	24	25	26	23	26	23	23	290
American Sheet and Tin Plate Co.,	Armstrong,	17	23	26	19	25	24	24	25	21	20	16	17	257
Kier Fire Brick Co.,	Westmoreland,	26	24	26	26	26	25	26	26	26	27	25	26	309
Buffalo Creek Coal and Brick Co.,	Butler,	13	24	27	26	27	25	26	24	25	27	23	21	288
George E. Boyd Coal Co.,	Westmoreland,	14	17	18	20	12	11	9	9	13	12	15	11	161
Boyd Brothers Coal Co.,	Westmoreland,	26	21	......	......	......	......	......	......	......	......	......	......	47
Provident Coke and Mining Co.,	Armstrong,	......	......	......	......	......	......	......	......	4	23	23	24	74

TABLE 4.—Fatal Accidents Inside and Outside of Mines

Date of accident		Name of Person	Nationality	Occupation	Age	Married or single	Number of widows	Number of orphans	Name of Mine	County	Nature and Cause of Accident in Brief
Jan.	7	Harry Werley, ...	American, ..	Miner, ...	33	M.	1	5	Johnetta No. 2,..	Armstrong, ...	Killed by fall of roof at face of room while loading car.
	10	John H. Steel, ...	American, ..	Loader, ...	42	M.	1	4	Mt. Gray, ...	Westmoreland,.	Fatally injured by fall of coal at face of rib. He was scraping up the coal to load when the fall occurred. Died two hours afterward.
Feb.	5	George Reimer, ...	German, ...	Laborer, ...	58	S.	....	....	Bessemer No. 1,	Allegheny, ...	Killed by falling into shaft. He had sent down a car loaded with pit ties but did not close the gate at the top of the shaft. He then started to push another car toward the shaft, but pushed it into the shaft and fell with it. Outside.
March	4	Sam Praza, ...	Italian, ...	Miner, ...	20	S.	....	....	Bessemer No. 1,	Allegheny, ...	Fatally injured by fall of roof while picking coal at face of butt heading. He failed to stand a sufficient number of posts to support the roof. Died at hospital six hours later.
	25	Adam Simon, ...	American, ..	Laborer, ...	62	S.	....	....	Bessemer No. 1,	Allegheny, ...	Killed by being run over by railroad car. He was employed on the tipple to pick slate from the coal on picking tables. He left his work and went down railroad track toward the power house instead of going past the shaft, the usual way. Outside.
May	9	John P. Melian, ...	Polish, ...	Driver, ...	24	M.	1	1	Bessemer No. 1,	Allegheny, ...	Fatally injured by mine cars on butt heading. Caught between car and rib. Died in Tarentum Hospital five weeks later.
July	7	Cyril Leahman, ...	American, ..	Laborer, ...	20	S.	....	....	Cornell, ...	Allegheny, ...	Fatally injured by being caught between railroad cars. He was employed to trim off and shift the cars. Died in hospital three hours later. Outside.
	10	John Stracki, ...	Austrian, ..	Loader, ...	28	M.	1	2	Tunnelton, ...	Indiana, ...	Fatally injured by fall of slate at face of right main entry. Died 30 minutes later.

July	23	John Grouch, ...	Russian, ...	Loader, ...	28	M.	1	2	Bessemer No. 1,	Allegheny, ...	Fatally injured by mine car on south heading. He rode between cars on the rear of a trip without the driver knowing it and fell off in front of car wheel. He was taken to Tarentum Hospital where he died eight days later.
	30	Mike Micalick, ...	Montenegrian,	Miner, ...	27	M.	1	1	Harwick, ...	Allegheny, ...	Killed by fall of coal at face of rib while mining.
Aug.	13	Andy Dobos, ...	Hungarian, .	Miner, ...	46	M.	1	3	Harwick, ...	Allegheny, ...	Fatally injured by mine car on entry. He was dropping an empty car down grade to his room when he lost control of it and the car ran over him. Died three days later in Tarentum Hospital.
	25	Thomas Coltman, ...	American, ..	Motorman, ..	17	S.	....	....	Benjamin, ...	Allegheny, ...	Fatally injured by motor running over him. Died a few minutes later. Outside.
	27	Antonia Pole, ...	Italian, ...	Laborer, ...	32	M.	1	2	Bessemer No. 1,	Allegheny, ...	Killed by fall of coal at face of room. He stooped to look at under-cut when the coal fell, fracturing his skull.
	30	Frank Cornick, ...	Slavonian, ..	Loader, ...	32	M.	1	2	Valley Camp, ...	Westmoreland,.	Fatally injured by fall of roof in room. While he was laying a track an unseen slip in the roof gave way and caught him. Died five hours afterward.
Sept.	27	Tony Viresty, ...	Polish,......	Miner, ...	31	M.	1	2	Cochran No. 1, ..	Westmoreland,.	Fatally injured by motor on entry. He was coming out of mine with motor and ran into car. Died one hour later.
Oct.	30	Veti Dipoolo, ...	Italian, ...	Loader, ...	27	S.	....	....	Mooween No. 1,.	Westmoreland,.	Killed by fall of slate at face of entry. He was in a stooping position when slate fell, crushing his head to the floor. He started to load a car without examining his place.
Nov.	20	Peter Nicolini, ...	Italian, ...	Miner, ...	32	S.	....	....	Foster No. 2, ..	Indiana, ...	Killed by fall of slate at face of butt entry. Neglected to post and slate fell while loading a car.
	21	Dominick Milino, ...	Italian, ...	Loader, ...	41	M.	1	1	Cochran No. 1, ..	Westmoreland,.	Killed by car on main entry. He was taking an empty car in on parting when caught between a runaway car and rib.
Dec.	4	John Robb, Jr., ...	American, ..	Helper, ...	19	S.	....	....	Harwick, ...	Allegheny, ...	Killed by cars on main haulage road to shaft.
	22	John Morner, ...	Slavonian, ..	Miner, ...	28	M.	1	2	Hite, ...	Allegheny, ...	Electrocuted by coming in contact with electric wire. He traveled the motor road instead of traveling road and when crossing between two cars touched a live wire.
	22	Madargo Ture, ...	Italian, ...	Miner, ...	29	M.	1	....	Blackstone, ...	Westmoreland,.	Fatally injured by fall of roof in entry stumps. He neglected to take down the loose roof. Died in hospital three weeks later.

TABLE 5.—Non-Fatal Accidents Inside and Outside of Mines

Date of accident		Name of Person	Nationality	Occupation	Age	Married or single	Name of Mine	County	Nature and Cause of Accident in Brief
Jan.	13	John Wage,	Hungarian,	Driver,	28	S.	Lucesco,	Westmoreland,	Arm broken by being caught between car and mule on entry.
	24	Adolf Smolinsky,	Polish,	Miner,	22	M.	Valley Camp,	Westmoreland,	Small bone in arm broken by fall of slate while loading a car at face of room.
Feb.	11	George W. Smith,	American,	Superintendent,	35	M.	Cornell,	Allegheny,	Skull fractured. Struck by revolving lever while removing an ice covered wire rope from shaft. Outside.
	14	George Lasko,	Russian,	Loader,	40	M.	Bessemer No. 1,	Allegheny,	Pelvic bone fractured by being caught between car and post while loading car at face of room.
	25	Henry Kinlock,	English,	Superintendent,	58	M.	Valley Camp,	Westmoreland,	Hands and face burned by a slight explosion caused by reversing the fan when there was a fire in part of the mine. After the workmen were withdrawn from the mine the superintendent ordered the fan reversed. When reversed it caused a slight explosion.
		William Dan Sharpe,	English,	Assistant mine foreman,	46	M.			
		John O'Brien,	Irish,	Fireboss,	46	M.			
March	7	Joe Rula,	Italian,	Pumper,	40	M.	West Penn,	Westmoreland,	Skin torn off back and arm while oiling pump. His coat sleeve caught in the cogs.
	20	Elmer Ballinger,	American,	Driver,	28	S.	Butler Junction,	Allegheny,	Leg badly bruised by being caught between chain and car within pit mouth.
April	3	Angelo Kinki,	Italian,	Miner,	45	M.	Kerr No. 8,	Butler,	Leg broken. While he was sitting on roadway eating lunch a car jumped the track and struck his leg just below the knee.
	12	Casbur Brock,	Slavonian,	Miner,	43	M.	Valley Camp,	Westmoreland,	Both legs broken by throwing a box off thread bar of a drilling machine into a bucket which had six sticks of powder and some caps, causing the powder to explode.
	14	Robert Rhine,	American,	Trapper,	18	S.	Avonmore,	Armstrong,	Leg broken by car on butt entry.
	23	Mike Batzko,	Russian,	Helper,	21	S.	Francis,	Allegheny,	Collar bone and ribs broken by being caught between car and rib on main haulage way.

April	26	**Albert Whittiker,**	**English,** ...	Helper, ...	21	S.	Valley Camp, ...	Westmoreland,.	Hip bone broken by being caught between car and post. While trip was in motion he attempted to uncouple the cars.
May	3	**Harry Spohn,**	American, ..	Miner, ...	26	M.	Natrona No. 1, ...	Allegheny, ...	Hand crushed while removing block from under car wheel at face of room.
	7	**Levy Acheme,**	Belgian, ...	Miner, ...	47	M.	Valley Camp, ...	Westmoreland,.	Hip dislocated by fall of coal at face of entry while cleaning up the coal after a shot had been fired.
	8	**Thomas Polints,**	Italian, ...	Miner, ...	46	M.	Foster No. 2, ...	Indiana, ...	Leg broken by fall of slate at face of room. He neglected to examine his place after firing a shot.
	20	**Felix Marrito,**	Italian, ...	Miner, ...	33	M.	West Penn, ...	Westmoreland,.	Leg broken by fall of slate while placing his tools back from face of main entry.
	22	**George Kostorek,**	Slavonian, ..	Loader, ...	47	M.	Hite, ...	Allegheny, ...	Fracture of pelvic bone. Knocked down and run over by car on side track.
June	11	**Harry Moore,**	American, ..	Driver, ...	26	S.	Harwick, ...	Allegheny, ...	Compound fracture of collar bone by being caught between roof and car on east main entry.
	16	**B. D. Yingst,**	American, ..	Weigh boss, ...	19	S.	Butler Junction, ...	Allegheny, ...	Leg broken by being run over by mine car on dump. Outside.
	28	**Bert Bopp,**	American, ..	Driver, ...	18	S.	West Leechburg, ...	Westmoreland,.	Back sprained. Caught between car and timber on haulage road as he leaned forward to pick up a sprag.
		Mike Ciger, ...	Slavonian,..	Miner, ...	34	M.	Strangford, ...	Indiana, ...	Back broken by fall of roof at face of butt entry while shoveling coal.
Aug.	11	**Thomas M. Jones,** ...	Welsh, ...	Machine runner,..	38	M.	Cornell, ...	Allegheny, ...	Leg broken by mining machine in room while moving the machine.
	13	**Martin Bash,**	American, ..	Miner, ...	55	M.	Natrona No. 1, ...	Allegheny, ...	Toes crushed by slate falling on them while taking down loose slate at face of room.
Sept.	15	**Joe Viskosky,**	Slavonian, ..	Timberman, ...	43	M.	Cornell, ...	Allegheny, ...	Head cut and bruised. He was taking a piece of machinery out of the mine by way of the air shaft when the scaffold broke and he fell on a pile of timber.
Oct.	2	**Simon Snail,**	American, ..	Miner, ...	48	M.	Kirkpatrick, ...	Armstrong, ...	Hand cut by fall of coal while undermining at face of room.
	7	**Frank Coseet,**	Polish,......	Miner, ...	36	M.	Superior No. 1, ...	Allegheny, ...	Leg broken by fall of coal while taking down loose coal at face of room.
	21	**William Barclay,**	American, ..	Helper, ...	20	S.	Natrona No. 1, ...	Allegheny, ...	Thigh fractured by fall of roof on main entry while taking down drill machine.
	30	**Frank Goliski,**	Slavonian, ..	Loader, ...	26	S.	Valley Camp, ...	Westmoreland,.	Pelvic bone fractured by being caught between car and rib. He attempted to jump on cars while trip was in motion.
Nov.	13	**John Lapisky,**	Russian, ...	Loader, ...	27	S.	Francis, ...	Allegheny, ...	Leg broken by fall of coal while shearing at face of left butt.
Dec.	12	**John Grinder,**	American, ..	Loader, ...	50	M.	Natrona No. 1, ...	Allegheny, ...	Toe cut off by fall of piece of slate while knocking down coal.
	15	**Alex Cicoria,**	Italian, ...	Miner, ...	24	S.	Mitchell-Watson No. 1,	Indiana, ...	Foot crushed by mining machine on main entry.

CONDITION OF MINES

FORD COLLIERIES COMPANY

Benjamin.—There was an abundance of air well distributed to the working faces. Drainage and general conditions good. Shot firers were employed to do all the blasting and permissible explosives were used exclusively.

Francis.—Ventilation was good, as the air was well distributed. Drainage and general conditions good. Shot firers were employed to do all the blasting and permissible explosives were used exclusively.

BESSEMER COAL AND COKE COMPANY

Bessemer No. 1.—Ventilation and drainage good. On my last inspection the general conditions were much improved. Shot firers were employed and permissible explosives used for all blasting.

SALTSBURG COAL COMPANY

Foster Nos. 1, 2 and 3.—Ventilation and drainage good. These mines are a considerable distance from the opening. General conditions good.

ALLEGHENY COAL COMPANY

Harwick.—Ventilation not satisfactory on my last inspection, as it was weak at the faces of some of the working places on the northwest side of the mine, but I was assured that improvements would be made and more air conducted to the northwest of the mine. Since then I have been informed by the mine foreman that he has complied with my request. Shot firers were employed and permissible explosives used for all blasting. Safety lamps are used exclusively.

VALLEY CAMP COAL COMPANY

Valley Camp.—Ventilation and drainage good. Shot firers were employed and permissible explosives used exclusively. A mine fire that occurred on the right side of the mine, on five butt entry at 31 room, required the walling off of all the right side to prevent the fire from spreading and to permit operation in the other portion of the mine. The fire zone remains sealed.

CORNELL COAL COMPANY

Cornell.—Ventilation and drainage good. Permissible explosives were used exclusively and shot firers were employed to do all blasting. General conditions good.

McFETRIDGE BROTHERS

Hite.—Ventilation and drainage good. Permissible explosives were used exclusively. Shot firers were employed to do all blasting. General conditions good. On the north side of the mine safety lamps were used exclusively.

SUPERIOR FUEL COMPANY

Superior No. 1.—Ventilation, drainage and general conditions good. Permissible explosives were used exclusively and shot firers employed to do all blasting. The mine is very faulty, the rock cutting out the coal in many places. It was much improved during the year.

PITTSBURGH PLATE GLASS COMPANY

Creighton.—Ventilation, drainage and general conditions good, as improvements have been made inside and outside. Permissible explosives were used and shot firers employed to fire all blasts.

KEYSTONE COAL COMPANY

Mooween No. 1.—Ventilation, drainage and general conditions good. Many improvements have been made inside and outside.

COCHRAN COAL COMPANY

Cochran No. 1.—Ventilation was only fair, but the management have assured me that an air shaft will be sunk at or near the face of working to be used as a second opening and air way, which will greatly improve the conditions as to ventilation and traveling way.

AVONMORE COAL AND COKE COMPANY

Avonmore.—Ventilation, drainage and general conditions good.

PENNSYLVANIA SALT MANUFACTURING COMPANY

Natrona No. 1.—Ventilation, drainage and general conditions good.

Natrona No. 2.—Ventilation and drainage good, but the mine has a rock fault which cuts out the coal frequently.

PINE RUN COMPANY

Lewis.—Ventilation was weak on my last inspection, but will be much improved when the new fan is installed, which I am assured will be done soon. Drainage good.

ROARING RUN MINING COMPANY

Roaring Run No. 1.—Ventilation fair; drainage good. General conditions only fair, owing to numerous changes made in the management of the mine. Every time I made my regular inspection there was a new mine foreman and each one promised to carry out instructions, but did not remain long enough to do so.

CONEMAUGH COAL COMPANY

Conemaugh.—Ventilation generally was fair, but it will be much improved when the new opening is completed at face of workings. Drainage and general conditions good.

WEST PENN COAL MINING COMPANY

West Penn No. 1.—Ventilation fair, but will be much improved when the new overcast is completed. Drainage good. General conditions will be much improved by a general cleaning up of the mine.

MITCHELL-WATSON COAL AND COKE COMPANY

Mitchell-Watson No. 1.—Ventilation fair; drainage good and general conditions good.

UNITED STATES SEWER PIPE COMPANY

Johnetta No. 2.—Ventilation and drainage good.

ALLEGHENY COAL AND COKE COMPANY

Avenue.—Ventilation and drainage good. The mine has a rock fault which cuts out the coal frequently.

HOWARD GAS COAL COMPANY

Mt. Gray.—Ventilation fair. While the total volume of air produced at the mine is sufficient for the present, it is difficult to control and keep it from escaping to the surface by way of falls breaking through to surface. Drainage good.

ARMSTRONG COUNTY COAL COMPANY

Armstrong.—Ventilation, drainage and general conditions good.

PAULTON COAL MINING COMPANY

Paulton.—Ventilation and drainage good. The mine had an extensive creep overrunning a good portion of the right side of the mine, but it has settled.

MAHER COAL AND COKE COMPANY

Maher No. 4.—Ventilation fair; drainage and general conditions good.

KERR COAL COMPANY

Kerr No. 8.—Ventilation and drainage good; general conditions fair.

RARIDAN COAL COMPANY

Raridan.—In good condition generally.

APOLLO COAL COMPANY

Northwest.—Ventilation and drainage good. The faulty system of mining has caused a creep overrunning the old section of the mine.

DALLIBA COAL COMPANY

Dalliba.—Ventilation and drainage fair. The mine is troubled with rock fault which cuts out the coal frequently.

BEN FRANKLIN COAL COMPANY

Braeburn.—Ventilation only fair, but I was assured that a larger fan would be installed to furnish a greater volume of air which is necessary as the mine has been enlarged. Drainage good.

LEECHBURG COAL AND COKE COMPANY

Riverview.—Ventilation and drainage good; general conditions fair.

ALADDIN COAL AND COKE COMPANY

Aladdin.—Ventilation very much improved since the installation of the new fan. Drainage and general conditions good.

HADDON COAL COMPANY

Haddon.—Ventilation fair; drainage good. In fair condition generally.

GILPIN COAL COMPANY

Gilpin.—Ventilation fair and drainage good, but the mine has a creep overrunning the west side of the mine, it has settled.

LOGANSPORT COAL COMPANY

Bethel.—Ventilation is weak. The mine has become too large to be ventilated by the furnace but I was assured by the management that a fan would be installed to provide ample ventilation.

LUCESCO COAL COMPANY

Lucesco.—On my last inspection of this mine I found the ventilation and drainage very poor, due to a creep overrunning the mine, which will eventually close it. This is due to the faulty method of mining, as sufficient barrier pillars were not left to maintain the main entries.

KISKIMINETAS COAL COMPANY

Tunnelton.—Ventilation fair and drainage good. A new intake air way has been completed which will increase the volume of air and improve the general condition.

BLAIRSVILLE COKE COMPANY, LIMITED

Strangford.—Ventilation and drainage good.

BOWMAN COAL COMPANY

Bowman.—Ventilation, drainage and general condition very satisfactory.

VALLEY COAL COMPANY

Valley.—Condition as to health and safety very good.

BUTLER JUNCTION COAL COMPANY

Butler Junction.—Ventilation, drainage and general condition satisfactory.

PINE RUN COAL AND COKE COMPANY

Pine Run No. 2.—Ventilation and drainage good.

MAHER AND GRAFF COAL COMPANY

Thomas Maher.—Ventilation not very good, but a fan was being installed to ventilate the mine. The furnace will be abandoned. Drainage good.

WEST LEECHBURG STEEL AND TIN PLATE COMPANY

West Leechburg.—Ventilation, drainage and general condition very good.

WEST PENN MINING COMPANY

West Penn.—Ventilation, drainage and general condition very good.

BAGDAD COAL AND COKE COMPANY

Bagdad.—Ventilation and drainage good, but the mine has a creep overrunning the east side.

EDRI COAL COMPANY

Edri.—Ventilation and drainage good. It will be only a short time until this mine will be finished.

EAST DEER COAL COMPANY

Peterson.—Ventilation, drainage and general condition good.

LEWIS COAL COMPANY

Blackstone.—Condition in general in regard to health and safety good.

AMERICAN SHEET AND TIN PLATE COMPANY

Kirkpatrick.—Condition as to ventilation, drainage and health, good.

KIER FIRE BRICK COMPANY

Kier.—This mine is not under the law.

BUFFALO CREEK COAL AND BRICK COMPANY

Clark.—Ventilation and drainage good.

GEORGE E. BOYD COAL COMPANY

Elizabeth.—This mine is not under the law.

BOYD BROTHERS COAL COMPANY

Boyd.—This mine is closed down on account of fire in the adjacent mine.

PROVIDENT COKE AND MINING COMPANY

Provident No. 1.—This mine was reopened during the latter part of the year and is practically being rebuilt with great care.

IMPROVEMENTS

FORD COLLIERIES COMPANY

Benjamin.—Installed two 200 horse power Erie City return tubular boilers; one 8 by 5 by 8 Duplex plunger boiler feed pump; one 7 by 8 Deming vertical triplex pump, driven by a 15 horse power Westinghouse 250 volt D. C. motor; four Fairmont No. 1 mine pumps, driven by 2.5 horse power General Electric motors; one 6 ton Morgan-Gardner gathering locomotive; one Morgan-Gardner type S. A. mining machine; one 12 ton Jeffrey haulage motor. Built 321 tile stoppings; installed a telephone system, having 8 stations inside and two outside; built a supply house, 20 by 40 feet, of brick and concrete, and 15 frame dwelling houses.

Francis.—Installed one 8 by 5 by 8 Duplex plunger boiler feed pump; one 7 by 8 Deming vertical triplex pump, driven by 15 horse power Westinghouse motor; three Fairmont No. 1 mine pumps, driven by 2.5 horse power General Electric motors; one 6 ton Morgan-Gardner gathering locomotive; one 12 ton Jeffrey haulage motor. Built 318 tile stoppings; installed a telephone system, having 6 stations inside and outside; built supply house, 20 by 40 feet, of brick and concrete, 10 frame dwelling houses.

BESSEMER COAL AND COKE COMPANY

Bessemer No. 1.—Installed three gathering locomotives and two electric chain machines; built a brick fire proof boiler and engine house; two shafts lined and guides renewed; motor road rebuilt with 40-pound rails; extension of yard room; pit cars rebuilt of larger type; built brick office and Savings Bank building.

ALLEGHENY COAL COMPANY

Harwick.—Installed motor haulage and reversed fan, changing system of ventilation. Built an office, car shop and 10 blocks of houses.

VALLEY CAMP COAL COMPANY

Valley Camp.—Installed a Ridgeway dynamo and engine at power house.

CORNELL COAL COMPANY

Cornell.—Opened a section of 290 acres of coal, about 4000 feet from the outside entrance, through old No. 4 right entry; built one overcast and 23 brick stoppings to conduct the air through the new section. Installed one 5 ton Morgan-Gardner motor in old section and one 8 ton Morgan-Gardner motor in new section of mine.

McFETRIDGE BROTHERS

Hite.—Graded and laid 2500 feet of motor road with 30-pound rail; installed two electric pumps, one 600 gallons per minute capacity, the other 265 gallons per minute capacity; laid 3000 feet of 5 inch wood pipe; added 100 2-ton pit cars; new entry driven to tipple for empty cars; relaid 1200 feet of dilly road with 30-pound rails; installed 3000 feet of trolley wire for motor road on south side of mine.

SUPERIOR FUEL COMPANY

Superior No. 1.—Rebuilt pump house of concrete and iron and relaid haulage roads with heavy iron. Installed a Nicholson overwinding device and safety gates; also new boiler and electric generator.

PITTSBURGH PLATE GLASS COMPANY

Creighton.—Installed a 500 K. W. Westinghouse generator, driven by a 14 by 16 inch Buckeye engine; built a generator and engine room, 30 by 30 feet, enlarged boiler house, 14 by 62 feet; installed a 100 horse power tubular boiler, 5 by 16 feet; built a sand and oil house, 12 by 31 feet, and a stock house, 21 by 36 feet. All buildings are constructed of hollow tile building block.

KEYSTONE COAL COMPANY

Mooween No. 1.—A new opening made; one 150 horse power boiler installed; a new bridge built across river; extended covering 50 feet over tipple; built six brick stoppings; installed a telephone system.

COCHRAN COAL COMPANY

Cochran No. 1.—Making a manway parallel to main entry; installed three pumps in the mine, motor generator set room in mine connected by drill hole 265 feet deep; 3500 feet of iron water line replaced by 4 inch high pressure wood pipe; installed electric rock drill. Town sewered with 4500 feet of 4 inch sewer pipe; built six new houses; raised 35 old houses on new foundations with cellars and drained.

MITCHELL-WATSON COAL AND COKE COMPANY

Mitchell-Watson No. 1.—Installed one 100 K. W. generator, three Sullivan electric coal cutting machines, 100 pit cars; built 4 double houses and addition to power house.

ALLEGHENY COAL AND COKE COMPANY

Avenue.—Installed one additional motor and two mining machines; made a new haulage road and laid a double track on bridge.

HOWARD GAS COAL COMPANY

Mt. Gray.—A sump, 10 by 30 feet, was made to take care of surface water.

ARMSTRONG COUNTY COAL COMPANY

Armstrong.—Fan house erected; installed a 10-foot Brazil fan and a 15 horse power Patton Brothers economy gas engine to run the fan.

MAHER COAL AND COKE COMPANY

Maher No. 4.—Installed electricity for collecting and hauling the coal.

KERR COAL COMPANY

Kerr No. 8.—Installed electric haulage in old part of mine for hauling slate and material; made a new drainage tunnel and built an 18 by 65 foot repair shop.

RARIDAN COAL COMPANY

Raridan.—An electric plant is being installed.

APOLLO COAL COMPANY

Northwest.—Installing electric haulage, one electric 6 ton motor one 25 horse power motor chain drive to run fan, one 5 horse power motor to run pump. Power furnished by the West Penn Electric Company.

DALLIBA COAL COMPANY

Dalliba.—Electric equipment increased; haulage roads improved, extended and relaid with heavy rails.

BEN FRANKLIN COAL COMPANY

Braeburn.—Completed a new traveling road and opening to the surface.

BLAIRSVILLE COKE COMPANY, LIMITED

Strangford.—Built a brick overcast and a coaling station outside.

VALLEY COAL COMPANY

Valley.—Installed one Sullivan C. E. mining machine, one 100 K. W. motor generator and one 15 horse power motor for running fan.

MAHER AND GRAFF COAL COMPANY

Thomas Maher.—Installed one 25 horse power electric motor.

EAST DEER COAL COMPANY

Peterson.—Installed one Sullivan Ironclad mining machine, one 50 horse power Westinghouse controller, and a 20 horse power general electric motor for pump. Pumped all water out of mine and made an opening to the surface at the extreme back part of the mine.

KIER FIRE BRICK COMPANY

Kier.—Installed a Sirocco fan and motor.

PROVIDENT COKE AND MINING COMPANY

Provident No. 1.—Installed electricity, a chain haul incline and tipple, 40-pound rails laid in main headings. Plant remodeled inside and out and equipped with all modern coal handling devices.

MINE FOREMEN'S, ASSISTANT MINE FOREMEN'S AND FIRE BOSSES EXAMINATIONS

The annual examination of applicants for certificates of qualification as mine foremen, assistant mine foremen and fire bosses was held in Shoop's Hall, Freeport, May 6, 7, and 8. The Board of Examiners was composed of David Young, Inspector; E. A. Waters, Superintendent, and Samuel L. Smith, Miner.

There were 32 applicants for certificates of qualification as mine foremen and 20 applicants for certificates of qualification as fire bosses. The following persons passed a satisfactory examination and were granted certificates:

MINE FOREMEN

First Grade

James Steele Swartz, Curtisville; Curtis Henry Snair, Hite; John A. Robertson, Vandergrift Heights.

Second Grade

James Rankin Shaffer, Avonmore; George William Goddard, William S. Cruthers, Horatio Raymond Wilson Kirkbride, Russellton; John O'Brien, Arnold; Harry Johnson, Saltsburg; Samuel McCall, Salina.

ASSISTANT MINE FOREMEN

Joseph A. Hogan, Arnold; Jesse Calvin Walker, Vandergrift Heights; Richard Irvine, Curtisville.

FIRE BOSSES

Henry Thomas Hoak, James J. Hogan, Arnold; Fred Ganss, James Flenner, Joseph Hamilton, Hite; Joseph A. Cox, Harry L. Hutchison, Oscar C. Bailey, Harry A. McMillen, Russellton; Robert B. McFetridge, Charles Jacques, Creighton; Peter Edward Luy, Brackenridge; William Earle Parsons, Curtisville.

FIFTEENTH DISTRICT

CAMBRIA AND INDIANA COUNTIES

Patton, Pa., February 20, 1914.

Hon. James E. Roderick, Chief of Department of Mines:

Sir: I have the honor to transmit herewith my annual report of the Fifteenth Bituminous District for the year ending December 31, 1913, in compliance with the Act of Assembly of June 9, 1911.

Respectfully submitted,

Alexander Monteith, Inspector.

SUMMARY OF STATISTICS

Number of mines,	69
Number of mines in operation,	64
Number of tons of coal shipped to market,	5,594,520
Number of tons used at mines for steam and heat,	138,260
Number of tons sold to local trade and used by employes,	29,937
Number of tons used in the manufacture of coke,	202,545
Number of tons of coal produced,	5,965,262
Number of tons of coke produced,	132,846
Number of coke ovens,	482
Number of coke ovens in operation,	482
Number of tons of coal produced by pick mining,	2,328,245
Number of tons produced by compressed air machines,	1,191,034
Number of tons produced by electrical machines,	2,445,983
Number of persons employed inside of mines,	5,985
Number of persons employed outside, including coke workers,	709
Number of persons employed at manufacture of coke,	78
Number of fatal accidents inside of mines,	20
Number of fatal accidents outside,	....
Number of non-fatal accidents inside of mines,	40
Number of non-fatal accidents outside,	1
Number of tons of coal produced per fatal accident inside,	298,263
Number of tons produced per fatal accident outside,	....
Number of tons produced per fatal accident inside and outside,	298,263
Number of persons employed per fatal accident inside,	299
Number of persons employed per fatal accident outside,	....
Number of persons employed per fatal accident inside and outside,	335
Number of persons employed per non-fatal accident inside,	150
Number of persons employed per non-fatal accident outside,	709
Number of persons employed per non-fatal accident inside and outside,	163
Number of wives made widows,	14
Number of children made orphans,	35
Number of steam locomotives used inside of mines,	....
Number of steam locomotives used outside,	....
Number of compressed air locomotives used inside,	2
Number of compressed air locomotives used outside,	....
Number of electric motors used inside,	106
Number of electric motors used outside,	....
Number of gasoline locomotives used inside,	2
Number of fans in use,	51
Number of furnaces in use,	16
Number of gaseous mines in operation,	7
Number of non-gaseous mines in operation,	57
Number of new mines opened,	2
Number of old mines abandoned,	....

TABLE A

PRODUCTION OF COAL

Names of Operators	Tons
Pennsylvania Coal and Coke Corporation,	1,425,700
Ebensburg Coal Company,	644,441
Carrolltown Coal Company,	512,801
Barnes and Tucker Company,	462,386
Sterling Coal Company,	407,043
Cherry Tree Coal Company,	291,583
Madeira-Hill Coal Mining Company,	282,100
Watkins Coal Company,	260,517
Rich Hill Coal Company,	232,434
Greenwich Coal and Coke Company,	219,574
Clearfield Bituminous Coal Corporation,	186,820
Duncan Spangler Coal Company,	167,593
Empire Coal Mining Company,	165,229
Cymbria Coal Company,	133,900
Oak Ridge Coal and Coke Company,	120,736
Nanty Glo Coal Mining Company,	98,622
Lenox Coal Company,	81,977
Woodland Coal and Coke Company,	53,202
Hastings Coal and Coke Company,	44,245
Beaver Coal Company,	31,034
Miller Run Coal Company,	27,753
Deringer Brothers,	25,181
Red Top Coal Company,	23,567
W. A. Gould and Brother,	21,226
Cheston Coal Company,	17,319
Peerless Coal Mining Company,	10,999
Patton Clay Manufacturing Company,	9,966
Milsom Coal Company,	7,314
Total,	5,965,262

Production by Counties

Cambria,	5,745,688
Indiana,	219,574
Total,	5,965,262

TABLE B.—Fatal and non-fatal accidents inside and outside of mines; number of tons of coal produced per accident; number of persons employed; number employed per accident

Names of Operators	Fatal Accidents			Non-Fatal Accidents			Tons of coal produced per fatal accident inside	Tons of coal produced per non-fatal accident inside	Number of employes inside	Number of employes outside	Total number of employes	Number of employes inside per fatal accident	Number of employes outside per fatal accident	Number of employes inside per non-fatal accident	Number of employes outside per non-fatal accident
	Inside	Outside	Total	Inside	Outside	Total									
Pennsylvania Coal and Coke Corporation, ..	7	......	7	12	......	12	203,671	118,808	1,345	194	1,539	192	....	112	....
Ebensburg Coal Co., ...	1	......	1	6	......	6	644,441	107,407	477	72	549	477	....	80	....
Carrolltown Coal Co., ...	3	......	3	5	......	5	170,934	102,560	479	51	530	160	....	96	....
Barnes and Tucker, ...	1	......	1	2	......	2	462,386	231,193	562	49	611	562	....	281	....
Sterling Coal Co., ...	......	......	......	4	......	4	....	101,761	417	32	449	....	....	104	....
Cherry Tree Coal Co., ...	......	....	......	4	......	4	....	72,896	263	31	294	....	....	66	....
Madeira-Hill Coal Mining Co., ...	2	......	2	......	......	......	141,050	....	354	31	385	177	....	....	....
Watkins Coal Co., ...	1	......	1	1	......	1	260,517	260,517	220	22	242	220	....	220	....
Rich Hill Coal Co., ...	......	......	......	2	1	3	....	116,217	318	21	339	....	....	159	21
Greenwich Coal and Coke Co., ...	3	......	3	......	......	......	73,191	....	250	32	282	83	....	....	....
Duncan Spangler Coal Co., ...	......	......	......	1	......	1	....	167,593	142	21	163	....	....	142	....
Oak Ridge Coal and Coke Co., ...	1	......	1	1	......	1	120,738	120,738	110	34	144	110	....	110	....
Woodland Coal and Coke Co., ...	......	......	......	1	......	1	....	53,202	62	2	64	....	....	62	....
Hastings Coal and Coke Co., ...	......	......	......	1	......	1	....	44,245	64	18	82	....	....	64	....
Red Top Coal Co., ...	1	......	1	......	......	......	23,567	....	27	2	29	27	....	....	....
Miscellaneous Companies, ...	......	......	......	......	......	......	....	....	895	97	992	....	....	....	....
Totals and averages for district, ...	20	......	20	40	1	41	298,263	149,132	5,985	709	6,694	299	....	150	709

TABLE C.—Classification of Fatal Accidents Inside and Outside of Mines

	Months													
	January	February	March	April	May	June	July	August	September	October	November	December	Totals	Percentages
Causes of Accidents Inside														
Falls of coal,	....	....	....	1	....	2	1	....	....	....	....	1	5	25.00
Falls of roof,	....	....	....	....	1	1	3	....	1	....	1	....	7	35.00
Mine cars,	....	1	1	1	....	1	....	....	1	....	....	1	6	30.00
Explosions of powder and dynamite,	2	....	....	....	....	....	....	....	....	....	....	....	2	10.00
Totals,	2	1	1	2	1	4	4	....	2	....	1	2	20	100.00
Causes of Accidents Outside (No Accidents)														

TABLE D.—Classification of Non-Fatal Accidents Inside and Outside of Mines

	Months													
	January	February	March	April	May	June	July	August	September	October	November	December	Totals	Percentages
Causes of Accidents Inside														
Falls of coal,	1	2	1	1	1	1	....	....	1	....	1	1	10	25.00
Falls of slate,	....	2	....	....	1	....	....	....	....	....	....	....	3	7.50
Falls of roof,	1	1	....	....	1	....	1	1	1	1	....	1	8	20.00
Mine cars,	2	1	1	2	1	....	....	....	....	....	4	1	12	30.00
Blasts, premature and otherwise,	....	....	....	....	....	....	....	1	....	....	....	....	1	2.50
Machinery,	1	....	....	....	....	1	....	....	....	....	....	1	3	7.50
Struck by bar,	....	1	....	....	....	....	....	....	....	....	....	....	1	2.50
Struck by piece of rock,	....	....	....	....	....	1	....	....	....	....	....	....	1	2.50
Struck by rope,	....	....	....	1	....	....	....	....	....	....	....	....	1	2.50
Totals,	5	7	2	4	4	3	1	2	2	1	5	4	40	100.00
Causes of Accidents Outside														
Cars,	....	....	1	....	....	....	....	....	....	....	....	....	1	100.00
Totals,	....	....	1	....	....	....	....	....	....	....	....	....	1	100.00
Grand totals inside and outside,	5	7	3	4	4	3	1	2	2	1	5	4	41	......

TABLE E.—Occupations of Persons Killed or Fatally Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
Inside													
Miners,	....	1	1	1	1	3	1	....	1	....	1	2	12
Machine runners,	....	....	....	....	....	....	1	....	....	....	....	....	1
Machine loaders,	....	....	....	....	....	....	2	....	1	....	....	....	3
Machine scrapers,	....	....	....	....	....	1	....	....	....	....	....	....	1
Drivers and runners,	2	....	....	....	....	....	....	....	....	....	....	....	2
Motormen,	....	....	....	1	....	....	....	....	....	....	....	....	1
Totals,	2	1	1	2	1	4	4	....	2	....	1	2	20
Outside (No Accidents)													

TABLE F.—Occupations of Persons Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
Inside													
Miners,	3	2	2	2	3	2	1	1	2	1	3	1	23
Machine loaders,	....	3	....	2	1	....	....	....	....	....	1	1	8
Machine scrapers,	....	....	....	....	....	1	....	....	....	....	....	....	1
Drivers and runners,	....	1	....	....	....	....	....	....	....	....	1	....	2
Motormen,	2	....	....	....	....	....	....	....	....	....	....	1	3
Rockmen,	....	1	....	....	....	....	....	....	....	....	....	....	1
Roadmen,	....	....	....	....	....	....	....	1	....	....	....	....	1
Pipemen,	....	....	....	....	....	....	....	....	....	....	....	1	1
Totals,	5	7	2	4	4	3	1	2	2	1	5	4	40
Outside													
Couplers,	....	....	1	....	....	....	....	....	....	....	....	....	1
Totals,	....	....	1	....	....	....	....	....	....	....	....	....	1
Grand totals inside and outside,	5	7	3	4	4	3	1	2	2	1	5	4	41

TABLE G.—Nationality of Persons Killed or Fatally Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
American,	1	....	....	1	....	....	....	....	....	....	1	....	3
English,	....	....	....	....	1	....	....	....	....	....	....	....	1
Polish,	....	1	....	....	....	1	....	....	1	....	....	....	3
Hungarian,	....	....	....	1	....	....	....	....	....	....	....	....	1
Italian,	....	....	1	....	....	1	2	....	....	....	....	2	6
Slavonian,	1	....	....	....	....	2	1	....	1	....	....	....	5
Russian,	....	....	....	....	....	....	1	....	....	....	....	....	1
Totals,	2	1	1	2	1	4	4	....	2	....	1	2	20

TABLE H.—Nationality of Persons Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
American,	1	1	2	....	2	....	....	....	1	....	....	1	8
English,	....	....	....	....	....	....	....	....	....	....	1	....	1
Welsh,	....	....	....	....	....	....	....	....	....	....	....	1	1
Irish,	....	1	....	....	....	....	1	1	....	....	....	....	3
Polish,	....	....	....	....	1	1	....	....	....	....	1	....	3
Hungarian,	....	....	....	1	....	....	....	....	....	....	....	....	1
Italian,	2	1	1	....	1	....	....	1	....	....	2	1	9
Slavonian,	2	3	....	2	....	2	....	....	1	....	....	....	10
Lithuanian,	....	....	....	1	....	....	....	....	....	....	....	....	1
Austrian,	....	....	....	....	....	....	....	....	....	1	....	....	1
Russian,	....	....	....	....	....	....	....	....	....	....	....	1	1
Swedish,	....	....	....	....	....	....	....	....	....	....	1	....	1
French,	....	1	....	....	....	....	....	....	....	....	....	....	1
Totals,	5	7	3	4	4	3	1	2	2	1	5	4	41

TABLE I.—Operators and mines, kind of openings, type and size of fans, size of furnaces, volume of air produced by fan or furnace per minute, number of splits of air currents and number of persons employed inside

Names of Operators and Mines	Kind of opening	Gaseous or non-gaseous	Method of ventilation	Diameter of fan in feet and inches	Width of blades in feet and inches	Depth of blades in feet and inches	Number of revolutions per minute	Water gauge developed—in inches	Name of fan	Power used	Area of furnace bars in square feet	Number of splits of air currents	Number of cubic feet of air per minute entering the mine at inlet	Total number of cubic feet of air per minute circulating in all the splits	Number of cubic feet of air per minute passing out at outlet	Number of persons employed inside
Pennsylvania Coal and Coke Corporation																
Pennsylvania No. 11, ...	Slope, ...	Non-gas., .	Fan, ...	7.0	1.6	2.6	300	.5	Stine, ...	Electricity..	..	1	30,000	20,750	31,200	57
Pennsylvania No. 12, ...	Drift, ...	Non-gas., .	Fan, ...	7.0	1.6	2.6	300	.5	Stine, ...	Electricity,.	..	1	30,000	4,000	30,000	12
Pennsylvania No. 13, ...	Slope, ...	Non-gas., .	Fan, ...	7.0	1.6	2.6	220	.3	Stine, ...	Electricity,.	..	1	25,000	11,000	25,300	76
Pennsylvania No. 20, ...	Slope, ...	Non-gas., .	Fan, ...	12.0	1.9	5.0	200	.7	Stine, ...	Steam,......	..	1	31,000	13,600	31,720	71
Pennsylvania No. 21, ...	Drift, ...	Non-gas., .	Fan, ...	12.0	3.6	3.4	120	2.0	Brazil, ...	Steam,......	..	2	32,000	11,000	32,000	94
Pennsylvania No. 22, ...	Drift, ...	Gaseous, ..	Fan, ...	12.0	5.0	3.6	110	2.5	Stine, ...	Steam,......	..	2	51,000	17,400	51,800	126
Pennsylvania No. 25, ...	Drift, ...	Gaseous, ..	Fan, ...	7.0	1.6	2.6	200	.5	Stine, ...	Steam,......	..	2	25,000	6,600	25,300	36
Pennsylvania No. 27, ...	Drift, ...	Non-gas., .	Fan, ...	7.0	1.6	2.6	200	.4	Stine, ...	Steam,......	..	2	26,000	10,000	26,900	41
Pennsylvania No. 28, ...	Slope, ...	Non-gas., .	Fan, ...	12.0	5.0	3.4	140	2.0	Stine, ...	Steam,......	..	6	80,000	61,300	81,300	292
Pennsylvania No. 29, ...	Slope, ...	Non-gas., .	Fan, ...	10.0	2.6	5.0	200	.5	Stine, ...	Steam,......	..	2	55,000	17,600	55,900	107
Pennsylvania No. 30, ...	Drift, ...	Non-gas., .	Fan, ...	8.0	4.6	3.6	160	1.0	Robinson,	Steam,......	..	3	42,600	14,600	43,800	100
Pennsylvania No. 33, ...	Drift, ...	Non-gas., .	Fan, ...	12.0	5.0	4.6	130	.9	Stine, ...	Steam,......	..	3	110,000	39,880	110,800	212
Pennsylvania No. 34, ...	Drift, ...	Non-gas., .	Fan, ...	12.0	3.0	3.4	60	.7	Brazil, ...	Gasoline, ...	..	1	6,200	4,200	6,320	15
Pennsylvania No. 35, ...	Drift, ...	Non-gas., .	Furnace,..	......	......	......	......	......	....	....	16	1	8,000	3,600	8,000	
Pennsylvania No. 39, ...	Slope, ...	Non-gas., .	Fan, ...	7.0	1.8	2.6	240	.6	Stine, ...	Steam,......	..	1	26,000	15,000	26,500	74
Pennsylvania No. 50, ...	Drift, ...	Non-gas., .	Furnace,..	......	......	......	......	......	....	....	24	1	16,000	6,000	16,200	32
Ebensburg Coal Co.																
Ebensburg No. 1, ...	Drift, ...	Gaseous, ..	Fan, ...	9.0	9.0	12.0	145	1.6	Sirocco, ..	Electricity..	..	3	186,000	104,400	188,000	477
Carrolltown Coal Co.																
Victor No. 1, ...	Drift, ...	Non-gas., .	Fan, ...	8.0	1.9	3.0	220	.75	Stine, ...	Electricity,.	..	3	43,000	24,000	43,400	120
Victor No. 2, ...	Drift, ...	non-gas.,	Fan, ...	20.0	6.0	6.0	80	2.0	Pollock, ..	Electricity,.	..	2	24,500	15,600	24,720	120
Victor No. 2, ...	Drift, ...	non-gas., .	Fan, ...	20.0	6.0	6.0	80	2.0	Pollock, ..	Electricity,.	..	1	24,500	9,100	24,500	77

Victor No. 4, ...	Drift, ...	Non-gas., .	Furnace,..	......	......	......	......	......	....	....	36	1	12,000	4,000	12,600	15
Victor No. 6, ...	Drift, ...	Non-gas., .	Fan, ...	8.0	1.9	3.0	220	.75	Stine, ...	Steam,......	..	1	15,000	5,600	15,400	38
Victor No. 10, ...	Slope, ...	Non-gas., .	Fan, ...	20.0	6.0	6.0	75	1.6	Pollock, ..	Steam,......	..	2	49,100	28,000	50,000	109
Barnes and Tucker																
Lancashire No. 3, ...	Drift, ...	Non-gas., .	Furnace,..	......	......	......	......	......	....	....	48	1	16,000	6,400	16,500	47
Lancashire No. 6, ...	Drift, ...	Non-gas., .	Furnace,..	......	......	......	......	......	....	....	36	1	6,000	4,000	6,100	8
Lancashire No. 7, ...	Drift, ...	Non-gas., .	*	......	......	....	......	......	....	....	..	1	14,000	8,000	14,200	51
Lancashire No. 10, ...	Drift, ...	Non-gas., .	Fan, ...	16.0	4.8	5.0	85	1.5	Brazil, ...	Electricity,.	..	2	48,000	17,000	48,700	104
Lancashire No. 12, ...	Slope, ...	Non-gas., .	Fan, ...	16.0	4.8	5.0	70	1.	Brazil, ...	Electricity,.	..	5	75,000	67,000	76,200	337
Lancashire No. 14, ...	Slope, ...	Non-gas., .	Furnace,..	......	......	......	......	......	....	....	24	1	6,000	2,200	6,200	15
Sterling Coal Co.																
Sterling No. 1, ...	Drift, ...	Gaseous,	2 Fans, .. Fan, ...	7.0 12.0	1.6 3.4	2.9 3.3	220 100	.7 1.0	Stine, ... Biterman,	Electricity,. Steam,......		2	52,000	24,600	53,100	134
Sterling No. 3, ...	Drift, ...	Non-gas., .	Fan, ...	7.0	1.6	2.9	220	.6	Stine, ...	Electricity,.	..	1	12,000	6,000	12,200	90
Sterling No. 5, ...	Drift, ...	Non-gas., .	Fan, ...	7.0	1.6	2.9	220	.5	Stine, ...	Electricity,.	..	1	24,000	8,000	24,400	
Sterling No. 6, ...	Drift, ...	Gaseous, ..	3 Fans, ..	7.0	1.6	2.9	220	.75	Stine, ...	Electricity,.	..	7	44,000	40,200	44,800	193
Cherry Tree Coal Co.																
Victor No. 15, ...	Slope, ...	Non-gas., .	Fan, ...	20.0	6.0	6.0	80	2.0	Pollock, ..	Steam,......	..	2	55,000	27,000	56,100	137
Victor No. 17, ...	Slope,.....	Non-gas., .	Fan, ...	4.0	3.0	1.8	500	1.5	Robinson,	Electricity,.	..	2	39,600	20,000	39,900	126
Madeira-Hill Coal Mining Co.																
Spangler No. 2, ...	Drift, ...	Non-gas., .	Fan, ...	10.0	2.6	3.0	60	.5	Brazil, ...	Steam,......	..	1	14,000	4,200	14,300	20
Spangler No. 3½, ...	Drift, ...	Non-gas., .	Fan, ...	12.0	2.6	3.0	100	1.25	Brazil, ...	Electricity,.	..	3	28,600	24,400	29,200	187
Spangler No. 4, ...	Shaft,.....	Non-gas., .	Fan, ...	8.0	4.6	4.0	150	2.0	Jeffrey, ..	Steam,......	..	3	70,000	35,000	72,000	147
Watkins Coal Co.																
Watkins No. 1, ...	Drift, ...	Non-gas., .	Fan, ...	8.0	4.0	4.0	200	1.2	Robinson,	Steam,......	..	4	61,800	48,800	62,600	220
Rich Hill Coal Co.																
Rich Hill No. 1, ...	Slope, ...	Non-gas., .	Fan, ...	10.0	4.6	4.0	150	1.5	Stine, ...	Electricity,.	..	3	56,300	36,100	57,000	218
Rich Hill No. 2, ...	Slope, ...	Non-gas., .	Fan, ...	10.0	3.0	2.8	80	1.0	Brazil, ...	Steam,......	..	2	14,300	10,000	14,800	100
Greenwich Coal and Coke Co.																
Greenwich No. 2, ...	Drift, ...	Non-gas., .	Fan, ...	15.0	3.6	4.6	60	.75	Brazil, ...	Steam,......	..	3	30,000	14,000	31,200	86
Greenwich No. 3, ...	Slope, ...	Gaseous, ..	Fan, ...	12.0	3.5	3.2	100	1.3	Brazil, ...	Steam,......	..	3	36,000	23,200	36,700	164
Clearfield Bituminous Coal Corporation																
West Branch, ...	Drift, ...	Gaseous, ..	Fan, ...	5.0 10.0	2.1 5.2	2.4 4.9	400 220	2.0 2.2	Robinson, Capell, ...	Electricity,. Steam,......		4	87,600	39,800	88,600	178
Duncan Spangler Coal Co.																
Delta, ...	Drift, ...	Non-gas., .	Fan, ...	10.0	4.5	2.9	150	1.0	Stine, ...	Steam,......	..	2	60,000	14,000	60,700	87
Blubaker No. 13, ...	Drift, ...	Non-gas., .	Fan, ...	8.0	2.3	3.6	200	.6	Stine, ...	Steam,......	..	2	35,000	11,000	36,000	55
Empire Coal Mining Co.																
Empire A, ...	Drift, ...	Non-gas., .	Fan, ...	10.0	2.6	4.0	200	1.0	Stine, ...	Steam,......	..	3	46,000	18,600	46,700	182

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*Ventilated by fan at Lancashire No. 12.

TABLE I.—Operators and mines, kind of openings, type and size of fans, size of furnaces, volume of air produced by fan or furnace per minute, number of splits of air currents and number of persons employed inside

Names of Operators and Mines	Kind of opening	Gaseous or non-gaseous	Method of ventilation	Diameter of fan in feet and inches	Width of blades in feet and inches	Depth of blades in feet and inches	Number of revolutions per minute	Water gauge developed—in inches	Name of fan	Power used	Area of furnace bars in square feet	Number of splits of air currents	Number of cubic feet of air per minute entering the mine at inlet	Total number of cubic feet of air per minute circulating in all the splits	Number of cubic feet of air per minute passing out at outlet	Number of persons employed inside
Pennsylvania Coal and Coke Corporation																
Pennsylvania No. 11, ...	Slope, ...	Non-gas., .	Fan, ...	7.0	1.6	2.6	300	.5	Stine, ...	Electricity,.	..	1	30,000	20,750	31,200	57
Pennsylvania No. 12, ...	Drift, ...	Non-gas., .	Fan, ...	7.0	1.6	2.6	300	.5	Stine, ...	Electricity,.	..	1	30,000	4,000	30,000	12
Pennsylvania No. 13, ...	Slope, ...	Non-gas., .	Fan, ...	7.0	1.6	2.6	220	.8	Stine, ...	Electricity,.	..	1	25,000	11,000	25,300	76
Pennsylvania No. 20, ...	Slope, ...	Non-gas., .	Fan, ...	12.0	1.9	5.0	200	.7	Stine, ...	Steam,......	..	1	31,000	13,600	31,720	71
Pennsylvania No. 21, ...	Drift, ...	Non-gas., .	Fan, ...	12.0	3.6	3.4	120	2.0	Brazil, ...	Steam,......	..	2	32,000	11,000	32,000	94
Pennsylvania No. 22, ...	Drift, ...	Gaseous, ..	Fan, ...	12.0	5.0	3.6	110	2.5	Stine, ...	Steam,......	..	2	51,000	17,400	51,800	126
Pennsylvania No. 25, ...	Drift, ...	Gaseous, ..	Fan, ...	7.0	1.6	2.6	200	.5	Stine, ...	Steam,......	..	2	25,000	6,600	25,300	36
Pennsylvania No. 27, ...	Drift, ...	Non-gas., .	Fan, ...	7.0	1.6	2.6	200	.4	Stine, ...	Steam,......	..	2	26,000	10,000	26,900	41
Pennsylvania No. 28, ...	Slope, ...	Non-gas., .	Fan, ...	12.0	5.0	3.4	140	2.0	Stine, ...	Steam,......	..	6	80,000	61,300	81,300	292
Pennsylvania No. 29, ...	Slope, ...	Non-gas., .	Fan, ...	10.0	2.6	5.0	200	.5	Stine, ...	Steam,......	..	2	55,000	17,600	55,900	107
Pennsylvania No. 30, ...	Drift, ...	Non-gas., .	Fan, ...	8.0	4.6	3.6	160	1.0	Robinson,	Steam,......	..	3	42,600	14,600	43,800	100
Pennsylvania No. 33, ...	Drift, ...	Non-gas., .	Fan, ...	12.0	5.0	4.6	130	.9	Stine, ...	Steam,......	..	3	110,000	39,880	110,800	212
Pennsylvania No. 34, ...	Drift, ...	Non-gas., .	Fan, ...	12.0	3.0	3.4	60	.7	Brazil, ...	Gasoline, ...	..	1	6,200	4,200	6,320	15
Pennsylvania No. 35, ...	Drift, ...	Non-gas., .	Furnace,..	......	......	......	......	......	....	....	16	1	8,000	3,600	8,000	
Pennsylvania No. 39, ...	Slope, ...	Non-gas., .	Fan, ...	7.0	1.8	2.6	240	.6	Stine, ...	Steam,......	..	1	26,000	15,000	26,500	74
Pennsylvania No. 50, ...	Drift, ...	Non-gas., .	Furnace,..	......	......	......	......	......	....	....	24	1	16,000	6,000	16,200	32
Ebensburg Coal Co.																
Ebensburg No. 1, ...	Drift, ...	Gaseous, ..	Fan, ...	9.0	9.0	12.0	145	1.6	Sirocco, ..	Electricity,.	..	3	186,000	104,400	188,000	477
Carrolltown Coal Co.																
Victor No. 1, ...	Drift, ...	Non-gas., .	Fan, ...	8.0	1.9	3.0	220	.75	Stine, ...	Electricity,.	..	3	43,000	24,000	48,400	120
Victor No. 2, ...	Drift, ...	non-gas.,	Fan, ...	20.0	6.0	6.0	80	2.0	Pollock, ..	Electricity,.	..	2	24,500	15,600	24,720	120
Victor No. 2, ...	Drift, ...	non-gas., .	Fan, ...	20.0	6.0	6.0	80	2.0	Pollock, ..	Electricity,.	..	1	24,500	9,100	24,500	77

Victor No. 4, ...	Drift, ...	Non-gas., .	Furnace,..	......	......	......	......	......	....	....	36	1	12,000	4,000	12,600	15
Victor No. 6, ...	Drift, ...	Non-gas., .	Fan, ...	8.0	1.9	3.0	220	.75	Stine, ...	Steam,......	..	1	15,000	5,600	15,400	38
Victor No. 10, ...	Slope, ...	Non-gas., .	Fan, ...	20.0	6.0	6.0	75	1.6	Pollock, ..	Steam,......	..	2	49,100	28,000	50,000	109
Barnes and Tucker																
Lancashire No. 3, ...	Drift, ...	Non-gas., .	Furnace,..	......	......	......	......	......	....	.. ..	48	1	16,000	6,400	16,500	47
Lancashire No. 6, ...	Drift, ...	Non-gas., .	Furnace,..	......	......	......	......	......	....	....	36	1	6,000	4,000	6,100	8
Lancashire No. 7, ...	Drift, ...	Non-gas., .	*	......	......	....	......	......	....	....	..	1	14,000	8,000	14,200	51
Lancashire No. 10, ...	Drift, ...	Non-gas., .	Fan, ...	16.0	4.8	5.0	85	1.5	Brazil, ...	Electricity,.	..	2	48,000	17,000	48,700	104
Lancashire No. 12, ...	Slope, ...	Non-gas., .	Fan, ...	16.0	4.8	5.0	70	1.	Brazil, ...	Electricity,.	..	5	75,000	67,000	76,200	337
Lancashire No. 14, ...	Slope, ...	Non-gas., .	Furnace,..	......	......	......	......	......	....	....	24	1	6,000	2,200	6,200	15
Sterling Coal Co.																
Sterling No. 1, ...	Drift, ...	Gaseous,	2 Fans, ..	7.0	1.6	2.9	220	.7	Stine, ...	Electricity,.		2	52,000	24,600	53,100	134
			Fan, ...	12.0	3.4	3.3	100	1.0	Biterman,	Steam,......						
Sterling No. 3, ...	Drift, ...	Non-gas., .	Fan, ...	7.0	1.6	2.9	220	.6	Stine, ...	Electricity,.	..	1	12,000	6,000	12,200	90
Sterling No. 5, ...	Drift, ...	Non-gas., .	Fan, ...	7.0	1.6	2.9	220	.5	Stine, ...	Electricity,.	..	1	24,000	8,000	24,400	
Sterling No. 6, ...	Drift, ...	Gaseous, ..	3 Fans, ..	7.0	1.6	2.9	220	.75	Stine, ...	Electricity,.	..	7	44,000	40,200	44,800	193
Cherry Tree Coal Co.																
Victor No. 15, ...	Slope, ...	Non-gas., .	Fan, ...	20.0	6.0	6.0	80	2.0	Pollock, ..	Steam,......	..	2	55,000	27,000	56,100	137
Victor No. 17, ...	Slope,.....	Non-gas., .	Fan, ...	4.0	3.0	1.8	500	1.5	Robinson,	Electricity,.	..	2	39,600	20,000	39,900	126
Madeira-Hill Coal Mining Co.																
Spangler No. 2, ...	Drift, ...	Non-gas., .	Fan, ...	10.0	2.6	3.0	60	.5	Brazil, ...	Steam,......	..	1	14,000	4,200	14,300	20
Spangler No. 3½, ...	Drift, ...	Non-gas., .	Fan, ...	12.0	2.6	3.0	100	1.25	Brazil, ...	Electricity,.	..	3	28,600	24,400	29,200	187
Spangler No. 4, ...	Shaft,.....	Non-gas., .	Fan, ...	8.0	4.6	4.0	150	2.0	Jeffrey, ..	Steam,......	..	3	70,000	35,000	72,000	147
Watkins Coal Co.																
Watkins No. 1, ...	Drift, ...	Non-gas., .	Fan, ...	8.0	4.0	4.0	200	1.2	Robinson,	Steam,......	..	4	61,800	48,800	62,600	220
Rich Hill Coal Co.																
Rich Hill No. 1, ...	Slope, ...	Non-gas., .	Fan, ...	10.0	4.6	4.0	150	1.5	Stine, ...	Electricity,.	..	3	56,300	36,100	57,000	218
Rich Hill No. 2, ...	Slope, ...	Non-gas., .	Fan, ...	10.0	3.0	2.8	80	1.0	Brazil, ...	Steam,......	..	2	14,300	10,000	14,800	100
Greenwich Coal and Coke Co.																
Greenwich No. 2, ...	Drift, ...	Non-gas., .	Fan, ...	15.0	3.6	4.6	60	.75	Brazil, ...	Steam,......	..	3	30,000	14,000	31,200	86
Greenwich No. 3, ...	Slope, ...	Gaseous, ..	Fan, ...	12.0	3.5	3.2	100	1.3	Brazil, ...	Steam,......	..	3	36,000	23,200	36,700	164
Clearfield Bituminous Coal Corporation																
West Branch, ...	Drift, ...	Gaseous, ..	Fan, ...	5.0	2.1	2.4	400	2.0	Robinson,	Electricity,.		4	87,600	39,800	88,600	178
				10.0	5.2	4.9	220	2.2	Capell, ...	Steam,......						
Duncan Spangler Coal Co.																
Delta, ...	Drift, ...	Non-gas., .	Fan, ...	10.0	4.5	2.9	150	1.0	Stine, ...	Steam,......	..	2	60,000	14,000	60,700	87
Blubaker No. 13, ...	Drift, ...	Non-gas., .	Fan, ...	8.0	2.3	3.6	200	.6	Stine, ...	Steam,......	..	2	35,000	11,000	36,000	55
Empire Coal Mining Co.																
Empire A, ...	Drift, ...	Non-gas., .	Fan, ...	10.0	2.6	4.0	200	1.0	Stine, ...	Steam,......	..	3	46,000	18,600	46,700	182

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*Ventilated by fan at Lancashire No. 12.

TABLE I.—Continued

Names of Operators and Mines	Kind of opening	Gaseous or non-gaseous	Method of ventilation	Diameter of fan in feet and inches	Width of blades in feet and inches	Depth of blades in feet and inches	Number of revolutions per minute	Water gauge developed—in inches	Name of fan	Power used	Area of furnace bars in square feet	Number of splits of air currents	Number of cubic feet of air per minute entering the mine at inlet	Total number of cubic feet of air per minute circulating in all the splits	Number of cubic feet of air per minute passing out at outlet	Number of persons employed inside
Cymbria Coal Co.																
Cymbria No. 1, ...	Drift, ...	Non-gas., .	Fan, ...	7.0	1.6	2.6	275	.75	Stine, ...	Steam, ...	..	1	34,000	7,600	35,200	90
Cymbria No. 2, ...	Drift, ...	Non-gas., .	Fan, ...	7.0	1.6	2.6	275	.75	Stine, ...	Steam, ...	..	1	26,000	10,000	26,600	
Oak Ridge Coal and Coke Co.																
Oak Ridge No. 1, ...	Slope, ...	Non-gas., .	Furnace, Fan, ...	6.0	3.0	2.0	180	.5	Robinson,	Steam, ...	36	2	29,200	13,500	30,000	102
Oak Ridge No. 2, ...	Drift, ...	Non-gas., .	†						....	....	..	1	6,000	3,000	6,400	8
Nanty Glo Coal Mining Co.																
Nanty Glo No. 2, ...	Drift, ...	Non-gas., .	Fan, ...	7.0	1.6	3.0	220	.5	Stine, ...	Gasoline, ...	..	2	25,000	22,000	25,400	101
Lenox Coal Co.																
Lenox No. 1, ...	Drift, ...	Non-gas., .	Fan, ...	7.0	1.6	3.0	200	.5	Stine, ...	Electricity, .	..	1	20,000	12,000	20,400	80
Woodland Coal and Coke Co.																
Woodland No. 1, ...	Drift, ...	Non-gas., .	Furnace, ..	......	......	......	......	......	....	....	42	2	25,000	19,000	25,300	62
Hastings Coal and Coke Co..																
Kinport No. 1, ...	Drift, ...	Non-gas., .	Fan, ...	10.0	2.10	2.8	80	.4	Cole, ...	Steam, ...	..	1	14,000	10,000	14,700	64
Beaver Coal Co.																
Beaver No. 1, ...	Drift, ...	Non-gas., .	Furnace, ..	......	......	......	......	......	....	....	36	1	6,000	4,000	6,200	38

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†Ventilated by fan at Oak Ridge No. 1.

Miller Run Coal Co. Miller Run No. 1, ...	Drift, ...	Non-gas., .	Furnace, ..	......	......	......	......	......	....	....	36	1	10,500	7,000	10,700	37
Deringer Brothers Woodland No. 2, ...	Drift, ...	Non-gas., .	Furnace, ..	......	......	......	......	......	....	....	36	1	16,000	11,520	16,400	34
Red Top Coal Co. Red Top No. 1, ...	Drift, ...	Non-gas., .	Furnace, ..	......	......	......	......	......	....	....	28	1	24,000	5,000	24,100	27
W. A. Gould and Brother Black Diamond, ...	Drift, ...	Non-gas., .	Furnace, ..	......	....	......	......	......	....	....	36	1	14,000	8,000	14,200	57
Cheston Coal Co. Cheston No. 1, ...	Drift, ...	Non-gas., .	Furnace, ..	......	......	......	......	......	....	....	24	1	8,000	6,000	8,200	31
Peerless Coal Mining Co. Peerless No. 1, ...	Drift, ...	Non-gas., .	Furnace, ..	......	......	......	......	......	....	....	40	1	8,000	3,200	8,200	18
Patton Clay Manufacturing Co.. Patton Clay No. 3, ...	Shaft, ...	Non-gas., .	Fan, ...	10.0	3.0	2.6	80	.5	Brazil, ...	Steam, ...	..	1	20,000	6,400	20,400	34
Milsom Coal Co. Lantzy No. 1, ...	Drift, ...	Non-gas., .	Furnace, ..	......	......	......	......	......	....	....	40	1	17,600	4,800	18,000	15

TABLE J.—Mines using coal cutting machines, power used, geological and local names of seams, thickest and thinnest seams where machines are used, and the approximate number of tons produced by machines

Names of Operators	Names of Mines	Kind of opening	Gaseous or non-gaseous	Number of mining machines used	Power used by machines	Geological and local names of seams	Average thickness in inches	Height of Seam in Inches		Approximate number of tons produced by machines
								Thickest	Thinnest	
Pennsylvania Coal and Coke Corporation,	Pennsylvania No. 11, ...	Slope, ...	Non-gas., .	8	Electricity, ...	D or Lower Freeport,	48	52	44	129,062
	Pennsylvania No. 12, ...	Drift, ...	Non-gas., .			D or Lower Freeport,	48	56	40	
	Pennsylvania No. 13, ...	Slope, ...	Non-gas., .			B or Lower Kittanning,	36	44	28	
	Pennsylvania No. 20, ...	Slope, ...	Non-gas., .	12	Compressed air, .	D or Lower Freeport,	46	56	36	60,703
	Pennsylvania No. 21, ...	Drift, ...	Non-gas., .	4	Electricity, ...	D or Lower Freeport.	42	46	38	78,832
	Pennsylvania No. 22, ...	Drift, ...	Gaseous, ..	6	Electricity, ...	D or Lower Freeport.	44	48	40	68,339
	Pennsylvania No. 25, ...	Drift, ...	Gaseous, ..	4	Compressed air, .	D or Lower Freeport.	44	46	42	19,975
	Pennsylvania No. 27, ...	Drift, ...	Non-gas., .	5	Compressed air, .	D or Lower Freeport.	46	56	36	11,417
	Pennsylvania No. 28, ...	Slope, ...	Non-gas., .	18 2	Compressed air, . Electricity, ...	C or Upper Kittanning,	44	52	36	241,587
	Pennsylvania No. 29, ...	Slope, ...	Non-gas., .	14	Compressed air, .	C or Upper Kittanning,	44	58	28	124,494
	Pennsylvania No. 30, ...	Drift, ...	Non-gas., .	9	Electricity, ...	C or Upper Kittanning,	48	60	36	92,960
	Pennsylvania No. 33, ...	Drift, ...	Non-gas., .	18 4	Compressed air, . Electricity, ...	C or Upper Kittanning,	40	50	30	154,665
	Pennsylvania No. 39, ...	Slope, ...	Non-gas., .	8	Compressed air, .	C or Upper Kittanning,	43	50	36	57,754
Totals, ...	....	....	....	107	....	....	......	......	......	1,039,808

Ebensburg Coal Co.,	Ebensburg No. 1,	Drift,	Non-gas.,	53	Electricity,	B or Lower Kittanning,	45	50	40	644,441
Carrolltown Coal Co.,	Victor No. 1,	Drift,	Non-gas.,	4	Electricity,	D or Lower Freeport,	48	54	42	149,416
	Victor No. 2,	Drift,	Non-gas.,	10		D or Lower Freeport,	48	54	42	99,982
	Victor No. 3,	Drift,	Non-gas.,	15		D or Lower Freeport,	48	54	42	30,167
Totals,	....	....	....	29	....	....	......	......	......	279,565
Barnes and Tucker,	Lancashire No. 12,	Slope,	Non-gas.,	30	Electricity,	D or Lower Freeport,	50	60	40	169,372
Sterling Coal Co.,	Sterling No. 1,	Drift,	Gaseous,	6	Electricity,	B or Lower Kittanning,	36	40	28	104,120
	Sterling No. 6,	Drift,	Gaseous,	10	Electricity,	B or Lower Kittanning,	36	40	28	160,383
Totals,	....	....	....	16	....	....	......	......	......	264,503
Cherry Tree Coal Co.,	Victor No. 15,	Slope,	Non-gas.,	12	Compressed air,	D or Lower Freeport,	48	50	46	130,778
	Victor No. 17,	Slope,	Non-gas.,	6	Electricity,	D or Lower Freeport,	48	50	46	141,077
Totals,	....	....	....	18	....	....	......	......	......	271,855
Madeira-Hill Coal Mining Co.,	Spangler No. 3½,	Drift,	Non-gas.,	3	Electricity,	E or Upper Freeport,	42	44	40	52,214
Watkins Coal Co.,	Watkins No. 1,	Drift,	Non-gas.,	3 10	Electricity, Compressed air,	E or Upper Freeport, D or Lower Freeport,	49	54	44	166,687
Rich Hill Coal Co.,	Rich Hill No. 1,	Slope,	Non-gas.,	7	Electricity,	E or Upper Freeport,	42	44	40	54,773
Greenwich Coal and Coke Co.,	Greenwich No. 3,	Slope,	Gaseous,	12	Electricity,	D or Lower Freeport,	42	48	36	63,666
Clearfield Bituminous Coal Corporation,	West Branch,	Drift,	Gaseous,	16 3	Compressed air, Electricity,	D or Lower Freeport,	44	48	40	184,359

TABLE J.—Continued

Names of Operators	Names of Mines	Kind of opening	Gaseous or non-gaseous	Number of mining machines used	Power used by machines	Geological and local names of seams	Average thickness in inches	Height of Seam in Inches		Approximate number of tons produced by machines
								Thickest	Thinnest	
Duncan Spangler Coal Co., ...	Delta, ...	Drift, ...	Non-gas., .	12	Compressed air,.	D or Lower Freeport.	50	54	46	100,067
	Blubaker No. 13, ...	Drift, ...	Non-gas., .	1	Electricity,......	D or Lower Freeport,	42	44	40	898
Totals, ...	....	....	....	13	....	....	......	......	......	100,960
Empire Coal Mining Co., ...	Empire A, ...	Drift, ...	Non-gas., .	21	Compressed air,.	D or Lower Freeport,	55	60	50	147,534
Cymbria Coal Co., ...	Cymbria Nos. 1 and 2, ...	Drift, ...	Non-gas., .	4	Electricity,.....	E or Upper Freeport, D or Lower Freeport,	45	55	35	80,000
Oak Ridge Coal and Coke Co., ...	Oak Ridge Nos. 1 and 2, ..	Drift, Slope,	Non-gas., .	10	Compressed air,.	E or Upper Freeport, D or Lower Freeport,	48	52	44	71,625
Lenox Coal Co., ...	Lenox No. 1, ...	Drift, ...	Non-gas., .	4	Electricity,......	E or Upper Freeport,	40	45	35	45,655
Grand totals, ...	....	....	....	859	....	....	......	......	......	8,687,017

TABLE 1.—Operators, Location of Mines, Railroads, etc.

Names of Operators and Mines	County	Name of General Superintendent	Post Office	Name of Superintendent	Post Office	Railroad to Mine
Pennsylvania Coal and Coke Corporation						
Pennsylvania Nos. 11, 12, 13 and 20,	Cambria,	T. H. Watkins,	910 Whitehall Building, New York City,	H. C. Yerger,	Patton,	Pennsylvania
Pennsylvania Nos. 21 and 22,				J. R. Nicholson,	Marsteller,	N. Y. C. and Penna.
Pennsylvania No. 25,				J. R. Nicholson,	Marsteller,	Pennsylvania
Pennsylvania Nos. 27, 28, 29, 30, 33, 34, 35, 39, 50,* 37,†				H. C. Yerger,	Patton,	N. Y. C. and H.
Ebensburg Coal Co.						
Ebensburg No. 1,	Cambria,	T. R. Johns,	Colver,	T. R. Johns,	Colver,	Cambria and Indiana
Carrolltown Coal Co.						
Victor Nos. 1, 2, 3, 4, 6 and 10,	Cambria,	A. M. Dunsmore,	St. Benedict,			N. Y C. and H.
Barnes and Tucker Co.						
Lancashire Nos. 3, 6, 7, 10, 12 and 14,*	Cambria,	John Barnes,	Barnesboro,	Richard Todhunter,	Barnesboro,	Pennsylvania
Sterling Coal Co.						
Sterling Nos. 1, 3, 5 and 6,	Cambria,	John B. Reed,	Elmora,	George H. Rodcliffe,	Elmora,	Pennsylvania
Cherry Tree Coal Co.						
Victor Nos. 15 and 17,	Cambria,	A. M. Dunsmore,	St. Benedict,			N. Y. C. and H.
Madeira-Hill Coal Mining Co.						
Spangler Nos. 2,† 3,† 3½, 4,	Cambria,	W. R. Wilburn,	Philipsburg,	E. Nicholson,	Barnesboro,	Pennsylvania
Watkins Coal Co.						
Watkins No. 1,	Cambria,	C. L. Watkins,	17 Battery Place, New York City,	J. G. Nicholson,	Barnesboro,	Pennsylvania
Rich Hill Coal Co.						
Rich Hill Nos. 1 and 2,	Cambria,	James H. Allport,	Hastings,	W. H. Allport,	Hastings,	Pennsylvania
Greenwich Coal and Coke Co.						
Greenwich Nos. 2 and 3,	Indiana,	M. J. Bracken,	Gallitzin,	J. G. Dunsmore,	Saxman,	Pennsylvania
Clearfield Bituminous Coal Corporation						
West Branch,	Cambria,	H. J. Hinterleitner,	Clearfield,	T. M. McCarthy,	Barnesboro,	N. Y. C. and H.

*New mine.
†Idle.

TABLE 1.—Continued

Names of Operators and Mines	County	Name of General Superintendent	Post Office	Name of Superintendent	Post Office	Railroad to Mine
Duncan Spangler Coal Co.						
Delta, ... Brubaker No. 13, ...	Cambria, ...	Joseph H. Reilly, ...	1414 South Penn Square, Philadelphia,	John E. Reilly, ...	Spangler, ...	Pennsylvania
Empire Coal Mining Co.						
Empire A, ...	Cambria, ...	G. Webb Shillingford,	Clearfield, ...	William R. Leadbetter,	Barnesboro, ...	N. Y. C. and H.
Cymbria Coal Co.						
Cymbria Nos. 1, 2 and 4,†	Cambria, ...	A. M. Riddell, ...	Altoona, ...	Harry Goodall, ...	Cymbria Mines, ...	Pennsylvania
Oak Ridge Coal and Coke Co.						
Oak Ridge Nos. 1 and 2, ...	Cambria, ...	H. J. Vandusen, ...	Hastings, ...	H. J. Huether, ...	Hastings, ...	Pennsylvania
Nanty Glo Coal Mining Co.						
Nanty Glo No. 2, ...	Cambria, ...	C. E. Sharpless, ...	Cresson, ...	John A. Klein, ...	Elmora, ...	Pennsylvania
Lenox Coal Co.						
Lenox No. 1, ...	Cambria, ...	John C. Cosgrove, ...	Cherry Tree, ...	John C. Cosgrove, ...	Cherry Tree, ...	Pennsylvania
Woodland Coal and Coke Co.						
Woodland No. 1, ...	Cambria, ...	W. Deringer, ...	Spangler, ...	....	....	Pennsylvania
Hastings Coal and Coke Co.						
Kinport No. 1, ...	Cambria, ...	John C. Cosgrove, ...	Cherry Tree, ...	John C. Cosgrove, ...	Cherry Tree, ...	Pennsylvania
Beaver Coal Co.						
Beaver No. 1, ...	Cambria, ...	D. B. Beaver.	Spangler, ...	D. B. Beaver, ...	Spangler, ...	Pennsylvania
Miller Run Coal Co.						
Miller Run No. 1, ...	Cambria, ...	William Abel, ...	Hastings, ...	William Abel, ...	Hastings, ...	Pennsylvania
Deringer Brothers						
Woodland No. 2, ...	Cambria, ...	W. Deringer, ...	Spangler, ...	....	....	Pennsylvania
Red Top Coal Co.						
Red Top No. 1, ...	Cambria, ...	Charles Hetrick, ...	Hastings, ...	George Commons, ...	Hastings, ...	Pennsylvania
W. A. Gould and Brother						
Black Diamond, ...	Cambria, ...	W. A. Gould, ...	Brisbin, ...	James Green, ...	Carrolltown, ...	Pennsylvania

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†Idle.

Cheston Coal Co.						
Cheston No. 1,	Cambria	Charles E. Brown,	Hastings,	Charles E. Brown,	Hastings,	Pennsylvania
Peerless Coal Mining Co.						
Peerless No. 1,	Cambria,	John R. Hayes,	Elmora,			Pennsylvania
Patton Clay Manufacturing Co.						
Patton Clay No. 3,	Cambria,	George E. Prindible,	Patton,	Daniel McMuldrin,	Patton,	N. Y. C. and H.
Milsom Coal Co.						
Lantzy No. 1,	Cambria,	C. H. Milsom,	Carrolltown,	C. H. Milsom,	Carrolltown,	N. Y. C. and H.
Logan Coal Co.						
Logan No. 5,†	Cambria,	I. A. Boucher,	Beaverdale,			Pennsylvania

†Idle.

TABLE 2.—Number of tons of coal mined and tons of coke produced, number of days worked, number of persons employed, number killed and injured, quantity of powder, dynamite and permissible explosives used, etc.

Names of Operators and Mines	County	Number of tons of coal shipped to market	Number of tons used at mines for steam and heat	Number of tons sold to local trade and used by employes	Number of tons used in manufacture of coke	Total production of coal in tons	Total production of coke in tons	Number of coke ovens	Number of days worked	Number of employes	Number of fatal accidents	Number of non-fatal accidents	Explosives			Number of horses and mules
													Number of pounds of powder used	Number of pounds of dynamite used	Number of pounds of permissible explosives used	
Pennsylvania Coal and Coke Corporation																
Pennsylvania No. 11, ..	Cambria, ...	85,186	4,799	463	52,677	143,125	37,803	152	274	165	2	3	12,920	750	....	24
Pennsylvania No. 12, ..									230							
Pennsylvania No. 13, ..									274							
Pennsylvania No. 20, ...		59,775	5,518	....	....	65,298	....	......	220	82	....	1	5,770	....	....	20
Pennsylvania No. 21, ..		171,666	5,030	1,262	60,316	238,274	36,072	180	293	283	2	2	22,820	5,100	....	6
Pennsylvania No. 22, ..																
Pennsylvania No. 25, ...		36,421	1,585	56	....	38,062	....	......	285	43	....	1	3,806	400	....	6
Pennsylvania No. 27, ...		66,236	193	515	....	66,944	....	......	278	46	....	....	6,694	....	....	16
Pennsylvania No. 28, ...		311,843	8,718	....	....	320,561	....	......	290	323	1	3	31,056	1,900	....	6
Pennsylvania No. 29, ...		153,663	3,311	....	....	156,974	....	......	274	117	....	1	14,690	100	....	21
Pennsylvania No. 30, ...		128,072	2,595	....	....	130,667	....	......	291	110	....	....	12,660	....	....	11
Pennsylvania No. 33, ...		173,773	5,948	....	....	179,721	....	......	214	232	....	1	16,972	4,300	....	......
Pennsylvania No. 34, ...		21,722	....	....	....	21,722	....	......	214	15	..	....	2,070	....	....	2
Pennsylvania No. 35, ...		1,855	....	....	....	1,855	....	......	180		2	....	185	2,000	....	2
Pennsylvania No. 39, ...		54,370	2,203	3,824	....	60,397	....	......	286	86	....	....	6,039	2,100	....	14
Pennsylvania No. 50, ...		2,094	11	....	....	2,105	....	......	25	37	....	....	210	300	....	5
Totals, ...	....	1,266,676	39,911	6,120	112,993	1,425,700	73,875	332	......	1,539	7	12	135,892	16,950	....	133
Ebensburg Coal Co.																
Ebensburg No. 1, ...	Cambria, ...	637,250	239	6,952	....	644,441	....	......	308	549	1	6	69,047	4,200	....	......

Carrolltown Coal Co.																
Victor No. 1, ...	Cambria, ...	149,411	....	5	....	149,416	....	......	284	129	....	2	37,300	729	....	......
Victor No. 2, ...		120,196	8,363	42	....	128,601	....	......	282	189	....	....	32,100	647	....	......
Victor No. 3, ...		71,849	12	251	....	72,112	....	......	279	84	1	....	18,000	351	....	......
Victor No. 4, ...		23,352	....	18	....	23,365	....	......	277	16	....	1	5,800	....	....	......
Victor No. 6, ...		39,190	1,231	2	....	40,423	....	......	280	41	....	....	10,025	177	....	......
Victor No. 10, ...		89,207	4,122	5,555	....	98,884	....	......	287	121	2	2	24,650	596	....	......
Totals, ...	....	493,205	13,728	5,868	....	512,801	....	......	......	530	3	5	127,875	2,500	....	......
Barnes and Tucker Co.																
Lancashire Nos. 3 and 6,	Cambria, ...	28,135	240	....	....	28,375	....	......	237	57	....	....	3,690	40	....	8
Lancashire No. 7, ...		49,189	....	....	....	49,189	....	......	316	54	....	....	3,500	75	....	......
Lancashire No. 10, ...		68,517	....	....	....	68,517	....	......	242	110	....	2	5,735	674	....	......
Lancashire No. 12, ...		306,589	8,540	....	....	315,129	....	......	278	373	1	....	36,050	10,767	....	......
Lancashire No. 14, ...		1,176	....	....	....	1,176	....	......	40	17	....	....	400	50	....	2
Totals, ...	....	453,606	8,780	....	....	462,386	....	......	......	611	1	2	49,375	11,606	....	10
Sterling Coal Co.																
Sterling No. 1, ...	Cambria, ...	141,950	4,955	1,129	....	148,034	....	......	253	147	....	2	14,500	....	....	......
Sterling Nos. 3 and 5, ..		55,924	....	26	....	55,950	....	......	273	95	....	....	5,500	....	....	......
Sterling No. 6, ...		200,009	2,820	230	....	203,059	....	......	294	207	....	2	20,000	....	....	......
Totals, ...	....	397,833	7,775	1,385	....	407,043	....	......	......	449	....	4	40,000	....	....	......
Cherry Tree Coal Co.																
Victor No. 15, ...	Cambria, ...	128,970	11,036	1,841	....	141,847	....	......	268	159	....	3	28,360	375	....	26
Victor No. 17, ...		149,699	....	37	....	149,736	....	......	268	135	....	1	39,940	415	....	10
Totals, ...	....	278,669	11,036	1,878	....	291,583	....	......	......	294	....	4	68,300	790	....	36
Madeira-Hill Coal Mining Co.																
Spangler No. 2, ...	Cambria, ...	35,403	....	299	....	35,702	....	......	286	23	....	....	8,000	300	....	5
Spangler No. 3½, ...		132,846	1,902	199	....	134,947	....	......	280	202	1	....	30,125	1,500	....	10
Spangler No. 4, ...		105,476	5,975	....	....	111,451	....	......	285	160	1	....	25,000	1,700	....	1
Totals, ...	....	273,725	7,877	498	....	282,100	....	......	......	385	2	....	63,125	3,500	....	16
Watkins Coal Co.																
Watkins No. 1, ...	Cambria, ...	257,637	2,206	674	....	260,517	....	......	286	242	1	1	14,620	1,100	....	......
Rich Hill Coal Co.																
Rich Hill No. 1, ...	Cambria, ...	141,965	....	....	....	141,965	....	......	275	339	....	2	30,000	2,000	....	......
Rich Hill No. 2, ...		89,588	881	....	....	90,469				....	....	1	....	....	....	......
Totals, ...	....	231,553	881	....	....	232,434	....	......	......	339	....	3	30,000	2,000	....	......
Greenwich Coal and Coke Co.																
Greenwich No. 2, ...	Indiana, ...	67,846	8,476	1,553	....	77,875	....	......	269	92	1	....	19,000	....	....	3
Greenwich No. 3, ...		141,699	....	....	....	141,699	....	......	282	190	2	....	20,000	900	1,000	......
Totals, ...	....	209,545	8,476	1,553	....	219,574	....	......	......	282	3	....	39,000	900	1,000	3

TABLE 2.—Continued

Names of Operators and Mines	County	Number of tons of coal shipped to market	Number of tons used at mines for steam and heat	Number of tons sold to local trade and used by employes	Number of tons used in manufacture of coke	Total production of coal in tons	Total production of coke in tons	Number of coke ovens	Number of days worked	Number of employes	Number of fatal accidents	Number of non-fatal accidents	Explosives			Number of horses and mules
													Number of pounds of powder used	Number of pounds of dynamite used	Number of pounds of permissible explosives used	
Clearfield Bituminous Coal Corporation West Branch, ...	Cambria, ...	176,548	10,080	192	....	186,820	....	......	281	203	....	....	22,500	....	1,900	8
Duncan Spangler Coal Co.																
Delta, ...	Cambria, ...	116,777	2,408	149	....	119,334	....	......	241	100	....	....	10,695	....	....	17
Blubaker No. 13, ...		46,491	1,550	218	....	48,259	....	......	256	63	....	1	5,480	600	....	1
Totals, ...	....	163,268	3,958	367	....	167,593	....	......	......	163	....	1	16,175	600	....	18
Empire Coal Mining Co. Empire A, ...	Cambria, ...	159,882	4,797	550	....	165,229	....	......	284	202	....	....	24,500	200	....	6
Cymbria Coal Co. Cymbria Nos. 1 and 2, ..	Cambria, ...	129,000	4,400	500	....	133,900	....	......	296	105	....	....	6,000	....	300	......
Oak Ridge Coal and Coke Co. Oak Ridge Nos. 1 and 2,	Cambria, ...	57,886	2,450	377	60,023	120,736	38,407	100	261	144	1	1	10,430	55	....	19
Nanty Glo Coal Mining Co. Nanty Glo No. 2, ...	Cambria, ...	98,427	....	195	....	98,622	....	......	272	109	....	....	10,450	10	....	20
Lenox Coal Co. Lenox No. 1, ...	Cambria, ...	81,967	....	10	....	81,977	....	......	262	88	....	....	565	120	....	......

Woodland Coal and Coke Co. Woodland No. 1, ...	Cambria, ...	52,902	150	150	....	53,202	....	......	274	64	....	1	9,000	500	....	11
Hastings Coal and Coke Co. Kinport No. 1, ...	Cambria, ...	12,473	905	1,838	29,529	44,245	20,564	50	299	82	....	1	5,232	326	....	2
Beaver Coal Co. Beaver No. 1, ...	Cambria, ...	30,400	366	268	....	31,034	....	......	246	40	....	....	1,775	40	....	4
Miller Run Coal Co. Miller Run No. 1, ...	Cambria, ...	27,753	....	....	....	27,753	....	......	252	41	....	....	2,500	200	....	5
Deringer Brothers Woodland No. 2, ...	Cambria, ...	24,931	150	100	....	25,181	....	......	280	87	....	....	2,750	1,000	....	6
Red Top Coal Co. Red Top No. 1, ...	Cambria, ...	23,217	57	293	....	23,567	....	......	294	29	1	....	4,425	800	....	4
W. A. Gould and Brother Black Diamond, ...	Cambria, ...	21,151	50	25	....	21,226	....	......	213	58	....	....	3,500	....	....	5
Cheston Coal Co. Cheston No. 1, ...	Cambria, ...	16,767	....	552	....	17,319	....	......	256	33	....	....	285	....	285	3
Peerless Coal Mining Co. Peerless No. 1, ...	Cambria, ...	10,885	22	92	....	10,999	....	......	265	19	....	....	600	25	....	2
Patton Clay Manufacturing Co. Patton Clay No. 3, ...	Cambria, ...	....	9,966	....	....	9,966	....	......	306	42	....	....	3,125	1,400	....	9
Milsom Coal Co. Lantzy No. 1, ...	Cambria, ...	7,314	....	....	....	7,314	....	......	166	15	....	....	2,500	....	....	2
Grand totals, ...	....	5,594,520	138,260	29,937	202,545	5,965,262	132,846	482	......	6,694	20	41	763,546	48,822	3,485	322

TABLE 2—Part 2

Names of Operators	County	Number of Boilers					Locomotives				Number of steam engines of all classes	Total horse power	Number of pumps delivering water to surface	Capacity in gallons per minute	Quantity delivered to surface per minute—gallons	Number of electric dynamos	Number of air compressors
		Cylindrical	Horse power	Tubular	Horse power	Total horse power	Gasoline	Steam	Air	Electric							
Pennsylvania Coal and Coke Corporation,	Cambria,	2	120	36	4,510	4,630	2	......	......	24	39	5,306	27	4,275	3,106	11	11
Ebensburg Coal Co.,	Cambria,	......	......	4	1,480	1,480	......	......	......	11	4	1,000	11	1,400	1,000	3	......
Carrolltown Coal Co.,	Cambria,	......	......	12	1,730	1,730	......	......	......	9	7	1,050	10	6,000	3,900	5	3
Barnes and Tucker Co.,	Cambria,	......	......	7	1,360	1,360	......	......	......	11	6	1,359	7	6,000	6,000	5	......
Sterling Coal Co.,	Cambria,	......	......	11	1,550	1,550	......	......	......	14	5	1,169	2	425	375	5	......
Cherry Tree Coal Co.,	Cambria,	......	......	6	900	900	......	......	......	4	3	250	4	3,200	2,400	2	2
Madeira-Hill Coal Mining Co.,	Cambria,	......	......	6	700	700	......	......	......	4	8	1,150	7	960	950	2	1
Watkins Coal Co.,	Cambria,	......	......	4	460	460	......	......	......	5	3	336	......	......	......	1	1
Rich Hill Coal Co.,	Cambria,	......	......	1	110	110	......	......	......	5	1	70	......	......	....	2	......
Greenwich Coal and Coke Co.,	Indiana,	......	......	6	700	700	......	......	......	4	6	815	3	650	450	2	2
Clearfield Bituminous Coal Corporation,	Cambria,	......	......	6	710	710	......	......	......	4	6	1,135	3	600	500	3	3
Duncan Spangler Coal Co.,	Cambria,	......	......	5	420	420	......	......	......	2	5	375	5	1,120	271	1	1
Empire Coal Mining Co.,	Cambria,	......	......	5	460	460	......	......	......	3	3	415	......	......	......	2	2
Cymbria Coal Co.,	Cambria,	......	......	4	600	600	......	......	......	4	4	300	1	250	250	2	......
Oak Ridge Coal and Coke Co.,	Cambria,	......	......	3	360	360	......	......	......	......	3	150	......	......	......	......	2
Nanty Glo Coal Mining Co.,	Cambria,	......	......	....	....	....	......	......	......	......	1	10	......	......	......	......	......
Lenox Coal Co.,	Cambria,	......	......	....	....	....	......	......	......	1	......	......	......	......	......	1	......
Woodland Coal and Coke Co.,	Cambria,	......	......	....	....	....	......	......	......	......	......	......	2	133	133	......	......
Hastings Coal and Coke Co.,	Cambria,	......	......	1	150	150	......	......	......	1	2	134	1	125	60	1	......
Beaver Coal Co.,	Cambria,	......	......	1	80	80	......	......	......	......	1	40	......	......	......	......	1
Deringer Brothers,	Cambria,	......	......	....	....	....	......	......	......	......	......	......	1	133	133	....	......
Patton Clay Manufacturing Co.,	Cambria,	......	......	....	....	....	......	......	......	......	2	75	2	150	150	......	......
Totals,		2	120	118	16,280	16,400	2	......	......	106	109	15,139	86	25,421	19.678	48	29

TABLE 3.—Number of Each Class of Employes Inside and Outside of Mines

Names of Operators	County	Inside												Outside								
		Mine foremen	Assistant mine foremen	Fire bosses	Miners	Machine runners	Machine loaders	Machine scrapers	Drivers and runners	Doorboys and helpers	Company men	All other employes	Total inside	Superintendents	Foremen	Blacksmiths and carpenters	Engineers and firemen	Coke employes	Bookkeepers and clerks	All other employes	Total outside	Grand total inside and outside
Pennsylvania Coal and Coke Corporation,	Cambria, ..	14	14	2	319	46	713	46	73	27	74	17	1,345	1	3	31	41	45	1	72	194	1,539
Ebensburg Coal Co.,	Cambria, ..	1	3	2	......	9	370	9	....	3	80	....	477	1	2	7	4	....	7	51	72	549
Carrolltown Coal Co.,	Cambria, ..	6	1	....	205	19	165	19	19	6	3	36	479	1	....	7	13	....	1	29	51	580
Barnes and Tucker Co.,	Cambria, ..	5	2	....	271	5	210	5	5	4	37	18	562	1	2	5	5	....	4	32	49	611
Sterling Coal Co.,	Cambria, ..	5	....	2	161	16	167	16	27	3	15	5	417	2	....	8	5	....	3	14	32	449
Cherry Tree Coal Co.,	Cambria, ..	2	2	....	22	19	164	19	16	1	....	18	263	1	....	4	7	....	....	19	31	294
Madeira-Hill Coal Mining Co.,	Cambria, ..	3	1	....	258	2	62	2	15	....	11	....	354	3	....	6	5	....	3	14	31	385
Watkins Coal Co.,	Cambria, ..	2	1	....	72	5	115	5	8	2	10	....	220	1	....	3	4	....	1	13	22	242
Rich Hill Coal Co.,	Cambria, ..	1	2	....	205	5	85	5	3	1	5	6	318	1	....	3	3	....	....	14	21	339
Greenwich Coal and Coke Co.,	Indiana, ...	2	1	1	199	3	20	3	....	2	19	....	250	1	1	4	8	....	2	16	32	282
Clearfield Bituminous Coal Corporation,	Cambria, ..	1	1	1	5	8	130	8	5	....	....	19	178	....	....	3	8	....	....	14	25	203
Duncan Spangler Coal Co.,	Cambria, ..	2	....	....	53	....	72	....	7	2	6	....	142	1	....	2	5	....	1	12	21	163
Empire Coal Mining Co.,	Cambria, ..	1	2	....	148	6	......	6	2	3	14	....	182	....	....	3	4	....	1	12	20	202
Cymbria Coal Co.,	Cambria, ..	2	....	....	34	4	36	4	....	....	10	....	90	1	....	2	3	....	1	8	15	105
Oak Ridge Coal and Coke Co.,	Cambria, ..	1	2	....	48	4	35	4	9	2	4	1	110	1	....	2	3	21	1	6	34	144
Nanty Glo Coal Mining Co.,	Cambria, ..	1	1	....	93	....	......	....	5	....	....	1	101	....	....	2	....	....	1	5	8	109
Lenox Coal Co.,	Cambria, ..	1	1	....	27	4	37	4	2	....	4	....	80	1	....	1	....	....	1	5	8	88
Woodland Coal and Coke Co.,	Cambria, ..	1	....	....	56	....	......	....	3	....	2	....	62	....	....	....	....	....	....	2	2	64
Hastings Coal and Coke Co.,	Cambria, ..	1	....	....	60	....	......	....	2	....	1	....	64	1	....	2	1	12	1	1	18	82
Beaver Coal Co.,	Cambria, ..	1	1	....	16	1	13	1	3	....	2	....	38	....	....	1	1	....	....	......	2	40
Miller Run Coal Co.,	Cambria, ..	1	....	....	30	....	......	....	3	....	1	2	37	....	1	....	....	....	1	2	4	41
Deringer Brothers,	Cambria, ..	1	....	....	30	....	......	....	2	....	1	....	34	....	....	2	....	....	....	1	3	37
Red Top Coal Co.,	Cambria, ..	1	....	....	21	....	......	....	3	....	2	....	27	1	....	1	....	....	....	......	2	29
W. A. Gould and Brother,	Cambria, ..	1	....	....	51	....	......	....	4	....	1	....	57	....	....	....	....	....	....	1	1	58
Cheston Coal Co.,	Cambria, ..	1	....	....	27	....	......	....	2	....	1	....	31	1	1	....	....	....	....	......	2	33

TABLE 3.—Continued

Names of Operators	County	Inside												Outside								
		Mine foremen	Assistant mine foremen	Fire bosses	Miners	Machine runners	Machine loaders	Machine scrapers	Drivers and runners	Doorboys and helpers	Company men	All other employes	Total inside	Superintendents	Foremen	Blacksmiths and carpenters	Engineers and firemen	Coke employes	Bookkeepers and clerks	All other employes	Total outside	Grand total inside and outside
Peerless Coal Mining Co., ...	Cambria, ..	1	....	....	15	....	......	....	2	....	....	....	18	1	....	....	....	....	....	......	1	19
Patton Clay Manufacturing Co., ...	Cambria, ..	1	....	....	24	....	......	....	5	....	4	....	34	1	....	1	1	....	1	4	8	42
Milsom Coal Co., ...	Cambria, ..	1	....	....	13	....	......	....	1	....	....	....	15	....	....	....	....	....	....	......	......	15
Totals, ...	....	61	35	8	2,463	156	2,394	156	226	56	307	123	5,985	22	10	100	121	78	31	347	709	6,694

TABLE 3.—Part 2

Names of Operators	County	Average Number of Days Worked												
		January	February	March	April	May	June	July	August	September	October	November	December	Total
Pennsylvania Coal and Coke Corporation,	Cambria,	22	20	20	20	19	21	21	19	20	22	17	21	242
Ebensburg Coal Co.,	Cambria,	27	24	26	26	27	25	25	26	26	27	24	25	308
Carrolltown Coal Co.,	Cambria,	25	23	24	24	23	24	23	23	22	24	23	23	281
Barnes and Tucker Co.,	Cambria,	17	16	17	15	16	19	19	18	19	21	21	24	222
Sterling Coal Co.,	Cambria,	21	23	23	22	24	23	22	23	22	26	22	22	273
Cherry Tree Coal Co.,	Cambria,	24	23	23	23	23	22	23	23	23	24	22	15	268
Madeira-Hill Coal Mining Co.,	Cambria,	23	22	25	24	24	23	23	24	24	25	24	23	284
Watkins Coal Co.,	Cambria,	24	20	23	23	26	25	25	24	24	21	25	26	286
Rich Hill Coal Co.,	Cambria,	21	21	24	24	24	25	25	20	23	25	22	21	275
Greenwich Coal and Coke Co.,	Indiana,	26	22	25	23	25	21	25	23	23	19	20	23	275
Clearfield Bituminous Coal Corporation,	Cambria,	26	24	24	25	18	19	24	25	25	23	23	25	281
Duncan Spangler Coal Co.,	Cambria,	23	22	21	14	20	18	23	20	17	24	22	24	248
Empire Coal Mining Co.,	Cambria,	26	24	24	20	19	23	25	25	25	26	23	24	284
Cymbria Coal Co.,	Cambria,	26	22	25	24	23	25	26	26	26	26	23	24	296
Oak Ridge Coal and Coke Co.,	Cambria,	26	23	23	16	16	17	23	22	23	26	22	24	261
Nanty Glo Coal Mining Co ,	Cambria,	26	24	25	13	12	25	25	25	25	24	24	24	272
Lenox Coal Co.,	Cambria,	23	24	22	23	25	11	24	20	23	21	23	23	262
Woodland Coal and Coke Co.,	Cambria,	21	18	25	18	24	20	25	20	18	18	23	24	254
Hastings Coal and Coke Co.,	Cambria,	24	24	26	26	26	25	25	25	22	27	24	25	299
Beaver Coal Co.,	Cambria,	26	18	20	16	25	19	18	21	21	19	20	23	246
Miller Run Coal Co.,	Cambria,	24	20	15	18	20	21	24	18	25	24	22	21	252
Deringer Brothers,	Cambria,	25	23	26	21	20	22	25	25	24	22	22	25	280
Red Top Coal Co.,	Cambria,	24	24	25	24	25	25	25	21	24	27	24	26	294
W. A. Gould and Brother,	Cambria,	18	17	13	10	20	15	19	24	21	20	22	14	213
Cheston Coal Co.,	Cambria,	25	22	18	22	24	24	25	18	19	21	17	21	256
Peerless Coal Mining Co.,	Cambria,	20	21	23	23	23	23	23	24	23	22	20	20	265
Patton Clay Manufacturing Co.,	Cambria,	27	24	26	26	27	25	26	25	25	26	24	25	306
Milsom Coal Co.,	Cambria,	26	24	9	......	......	......	8	14	22	26	15	22	166

TABLE 4—Fatal Accidents Inside and Outside of Mines

Date of accident		Name of Person	Nationality	Occupation	Age	Married or single	Number of widows	Number of orphans	Name of Mine	County	Nature and Cause of Accident in Brief
Jan.	22	Paul Steffus,	Slavonian,	Driver,	16	S.	....	....	Pennsylvania No. 35,	Cambria,	Instantly killed by explosion of powder and dynamite on main heading 700 feet from main entrance to mine.
		Ferdinand Behe,	American,	Driver,	16	S.	....	....			
Feb.	15	Mike Mosgovwich,	Polish,	Miner,	29	M.	1	1	Greenwich No. 8,	Indiana,	Fatally injured by empty mine cars in room neck. Died in Spangler Hospital next day.
March	20	Toney Diamico,	Italian,	Miner,	46	M.	1	5	Spangler No. 4,	Cambria,	Fatally injured by mine cars on heading near room switch. Died in Spangler Hospital next day.
April	3	Charles Coyas,	Hungarian,	Miner,	45	M.	1	5	Red Top No. 1,	Cambria,	Instantly killed by fall of bony coal in working place while taking out stump on pillar work.
	19	James Jack,	American,	Motorman,	29	M.	1	....	Victor No. 10,	Cambria,	Fatally injured at No. 21 room on 7th left heading by runaway trip. Died at Spangler Hospital same day.
May	23	Thomas Bradford,	English,	Miner,	35	M.	1	3	Victor No. 10,	Cambria,	Instantly killed by fall of roof in room neck. While turning room off heading a piece of roof fell from slips and caught him.
June	3	Joseph Hornack,	Polish,	Miner,	23	M.	1	....	Pennsylvania No. 22,	Cambria,	Killed by fall of coal in working place while undermining without securing the coal.
	6	August Agross,	Italian,	Miner,	36	M.	1	5	Pennsylvania No. 22,	Cambria,	Fatally injured by mine cars on heading. He was running along the side of a loaded trip trying to jump on it when he was caught at narrow point on heading.
	26	Mike Clubic,	Slavonian,	Miner,	32	M.	1	2	Greenwich No. 2,	Indiana,	Instantly killed by fall of coal while undermining loose end in working place. He neglected to secure the coal.
	28	John Frayanovitch,	Slavonian,	Scraper,	26	S.	....	....	Watkins No. 1,	Cambria,	Instantly killed by fall of roof at pillar work. He was examining the place when roof fell very suddenly and caught him.
July	12	Peter Pecona,	Italian,	Loader,	39	M.	1	2	Pennsylvania No. 11,	Cambria,	Killed by fall of roof at face of 5th left heading while loading cut-out. The roof fell from slip which ran parallel with rib and face.
	12	Mike Cutia,	Italian,	Loader,	42	M.	1	3			

July	15	John Bankus, ...	Russian, ...	Cutter, ...	33	S.	....	....	Victor No. 3.	Cambria, ...	Killed by fall of roof while cutting and loading at face of air course. He neglected to secure the roof with props.
	26	George Metfey, Sr.,..	Slavonian, ..	Miner, ...	49	M.	1	4	Pennsylvania No. 28,	Cambria, ...	Fatally injured by fall of coal in working place while undermining. Died at Spangler Hospital two days later.
Sept.	6	Joe Vassar, ...	Polish,......	Miner, ...	50	M.	1	4	Lancashire No. 12,..	Cambria, ...	Fatally injured by being caught between cars and side of heading. Died at Spangler Hospital same day.
	17	Andrew Drosk, ...	Slavonian, ..	Loader, ...	19	S.	....	....	Ebensburg No. 1, ...	Cambria, ...	Killed by fall of roof at room face while loading car. After firing a shot in the coal he returned to the face and began to load the coal before examining the roof.
Nov.	12	Hugh Fritz, ...	American, ..	Miner, ...	25	S.	....	....	Oak Ridge No. 1, ...	Cambria, ...	Instantly killed by fall of roof at face of heading. He had taken down only part of the ripping and was working under the remaining part, when the roof fell from slips and caught him.
Dec.	9	Frank Odoni, ...	Italian, ...	Miner, ...	22	M.	1	....	Greenwich No. 3, ...	Indiana, ...	Fatally injured by being caught between mine cars and corner of pillar at 3rd right heading. Died at Spangler Hospital next day.
	16	Peter Digiovanni, ...	Italian, ...	Miner, ...	26	M.	1	1	Spangler No. 3½, ...	Cambria, ...	Killed by fall of coal at face of working place while undermining loose end. Died on the way to Spangler Hospital.

TABLE 5.—Non-Fatal Accidents Inside and Outside of Mines

Date of accident		Name of Person	Nationality	Occupation	Age	Married or single	Name of Mine	County	Nature and Cause of Accident in Brief
Jan.	2	John Jones, ...	American, ..	Motorman, ...	20	M.	Sterling No. 6, ...	Cambria, ...	Leg broken and finger amputated by being caught between mine car and motor on main heading.
	6	Vatti Carid, ...	Italian, ...	Miner, ...	54	M.	Lancashire No. 10, ...		Ankle broken by fall of coal in working place while loading car.
	21	Mike Teslo, ...	Slavonian, ..	Miner, ...	54	M.	Lancashire No. 10, ...		Leg broken by fall of roof while brushing down coal in cross-cut at face of room.
	27	Mike Tasko, ...	Slavonian, ..	Motorman, ...	21	S.	Ebensburg No. 1, ...		Four ribs broken and injured internally. Caught between motor and prop while running alongside of out-going motor.
	28	Stefe Ruscheski, ...	Italian, ...	Miner, ...	43	M.	Ebensburg No. 1, ...		Leg broken by machine. He had set the machine close to the face and had turned on the power when the machine kicked back off the board and caught him.
Feb.	7	Frank Boulogne, ...	Slavonian, ..	Loader, ...	40	M.	Pennsylvania No. 28,..		Leg broken by fall of slate in working place while drilling hole in coal.
	7	Andrew Fellatic, ...	Slavonian,..	Loader, ...	45	M.	Pennsylvania No. 28,..		Ankle broken by fall of slate in working place while setting prop.
	11	George Pasko, ...	Slavonian, ..	Runner, ...	24	M.	Ebensburg No. 1, ...		Leg smashed and had to be amputated. Caught by mine car on heading. He failed to couple his trip, and when he started out two cars followed and caught him.
	15	Edward Lonergan, ... James McGlynn, ...	American, .. Irish, ...	Miner, ... Miner, ...	35 33	M. M.	Sterling No. 1, ...		Leg broken; three ribs broken by fall of bony coal in working place. They failed to secure the bony coal.
	17	Horace Collins, ...	French, ...	Rockman, ...	33	M.	Oak Ridge No. 1, ...		Back injured by fall of roof on heading. He was trimming up the side when a piece of roof fell and caught him.
	28	Joe Barell, ...	Italian, ...	Loader, ...	28	S.	Ebensburg No. 1, ...		Leg broken by being struck with machine bar. The machine became fast under the coal and he took a bar to loosen it. When the machine started it threw the bar out, striking him.

March	11	Andy Levis, ...	Italian, ...	Miner, ...	41	M.	Blubaker No. 13, ...	Cambria, ...	Two ribs and collar bone broken by fall of coal while undermining at face of working place.
		James Simon, ...	American, ..	Coupler, ...	16	S.	Rich Hill No. 2, ...		Two fingers amputated. Caught between bumpers of empty cars while coupling them at tipple. Outside.
	28	Albert Ellis, ...	American, ..	Miner, ...	28	S.	Ebensburg No. 1, ...		Wrist broken by mine car at face of room.
April	17	John Copara, ...	Slavonian, ..	Miner, ...	38	M.	Pennsylvania No. 29,..		Four ribs broken by mine cars on heading. He was following the trip out when the mule team stopped and let the cars back, catching him between car and prop.
	19	Mike Gallant, ...	Slavonian, ..	Miner, ...	46	M.	Victor No. 10, ...		Back and hips squeezed between mine car and motor.
	21	Peter Baqut, ...	Hungarian, .	Loader, ...	36	M.	Victor No. 15, ...		Leg broken by fall of coal. While he was trimming up the room face for machine a piece of loose coal fell and caught his leg.
	25	John Wacelisky, ...	Lithuanian,	Loader, ...	25	S.	Victor No. 15, ...		Leg broken. Struck by haulage rope on main heading while traveling out of mine.
May	12	Ray Reffner, ...	American, ..	Miner, ...	18	S.	Pennsylvania No. 25,..		Arm broken between motor and roof while getting on motor on main heading.
	17	Vincent Sprock, ...	Polish,......	Miner, ...	62	M.	Pennsylvania No. 11,..		Leg broken by fall of coal at working face. While he was pushing his car from the face the coal fell and caught him.
	24	Hofield Fariania, ...	Italian, ...	Loader, ...	35	S.	Victor No. 1, ...		Leg broken by fall of draw slate in working place. When he returned to the face after firing a shot he began to load a car without examining the condition of the roof or draw slate.
	29	William A. Sibert, ..	American, ..	Miner, ...	39	M.	Pennsylvania No. 20,..		Back injured by fall of roof at working face while loading car.
June	7	John Masugar, ...	Slavonian, ..	Miner, ...	22	S.	Rich Hill No. 1, ...		Collar bone broken by fall of coal while undermining at face of room.
	12	Joe Waxmunsky, ...	Polish,......	Scraper, ...	20	S.	Pennsylvania No. 11,..		Leg broken and ankle cut. Caught by cutting machine while cutting at face of room.
	19	Paul Hoydiez, ...	Slavonian, ..	Miner, ...	26	M.	Rich Hill No. 1, ...		Hand injured and finger amputated while handling rock at face of heading.
July	17	Stephen Gibbons, ...	Irish, ...	Miner, ...	32	S.	Ebensburg No. 1, ...		Leg broken by fall of roof at working face while cutting clay vein.
Aug.	14	Pompei Angels, ...	Italian, ...	Miner, ...	28	M.	Kinport No. 1, ...		Face and eyes injured and left arm amputated by premature blast. He had charged a hole in the roof and thinking it had misfired, returned to investigate when it exploded in his face.
	28	Patrick McCoy, ...	Irish, ...	Roadman, ...	43	M.	Watkins No. 1, ...		Leg broken by fall of roof. He was removing some old timber, preparatory to laying a switch, when a piece of roof fell on him.
Sept.	6	Max Shirnisky, ...	Slavonian, ..	Miner, ...	40	M.	Woodland No. 1, ...		Arm broken by fall of roof while loading car on heading.
	10	Douglas Reed, ...	American, ..	Miner, ...	38	M.	Victor No. 4, ...		Leg broken by fall of coal while undermining in cross-cut.

TABLE 5—Continued

Date of accident		Name of Person	Nationality	Occupation	Age	Married or single	Name of Mine	County	Nature and Cause of Accident in Brief
Oct.	20	Lewis Mark,	Austrian,	Miner,	24	S.	Sterling No. 6,	Cambria,	Leg broken by fall of roof at working face while cleaning up for machine to cut.
Nov.	7	John Posqubna,	Italian,	Miner,	24	S.	Pennsylvania No. 11,		Leg broken by fall of coal at face of room while shearing coal after blasting. He neglected to secure the coal.
	10	Olif Sweedburg,	Swedish,	Miner,	46	M.	Pennsylvania No. 33,		Leg broken by mine car in room neck. He had put the car into the switch, but not far enough to clear the main track. A motor passing hit the car and he was caught between car and rib.
		Peter Nichinski,	Polish,	Miner,	30	M.	Victor No. 1,		Finger amputated while lifting car on track in room. The lever he was using slipped and the car came down, catching his finger.
	21	Nicholas Luke,	Italian,	Loader,	31	M.	Pennsylvania No. 22,		Leg broken by being caught between mine cars at face of room.
	25	James Hadley,	English,	Driver,	35	M.	Victor No. 15,		Collar bone and rib broken by mine car on heading. He was cleaning up a wreck and a motor was pulling the cars back when one of them jumped the track catching him against the side of the heading.
Dec.	5	John Mankos,	Italian,	Miner,	22	M.	Victor No. 10,		Shoulder broken by fall of coal while mining at pillar.
	9	Peter Melcherno,	Russian,	Loader,	18	S.	Pennsylvania No. 21,		Back and side bruised by mine car in room. While he was lifting the car on the track the lever slipped and the car came down on him.
	18	Lake Neff,	American,	Motorman,	21	M.	Victor No. 17,		Thigh fractured by fall of roof at room neck.
	23	Dan Jones,	Welsh,	Pipeman,	45	M.	Pennsylvania No. 28,		Hand crushed and finger amputated by being caught in gear wheel of electric pump on back heading. The pump had just been installed and put in operation, and while looking it over he put his hand on the gear.

CONDITION OF MINES

PENNSYLVANIA COAL AND COKE CORPORATION

Pennsylvania No. 11.—In very satisfactory condition during the year, with few exceptions of minor importance.

Pennsylvania No. 12.—Employed only a few men and was shut down entirely during the latter part of the year. Ventilation fair. Drainage good.

Pennsylvania No. 13.—Ventilation and drainage were in a very satisfactory condition, although the haulage roads and airways are small and contracted through the old works driven some years ago.

Pennsylvania No. 20.—This is an old mine and the work is nearly all pillars and stumps. The thick coal is almost exhausted and they are now beginning to mine some thin coal, which was passed by in early development. Ventilation and drainage were much improved on my last inspection.

Pennsylvania No. 21.—Ventilation and drainage fairly good with a few exceptions of minor importance. During the latter part of the year a new opening was made near the face of the mine, which improved the ventilation. Haulage ways were small and congested in some parts.

Pennsylvania No. 22.—On my last inspection the ventilation was a little weak in some parts. A new air way parallel to the main was being constructed, and when completed, will greatly improve the ventilation. Drainage fairly good. Haulage roads are congested in some parts due to condition of roof.

Pennsylvania No. 25.—The mine was in a fault for some time and since they have cut through the fault they have only been developing. A new shaft has been projected for ventilation and traveling. Ventilation at times was weak and drainage defective, due to water rising in the main air course. In the old section the ventilation was fairly good.

Pennsylvania No. 27.—Ventilation and drainage very satisfactory on my last inspection. Prior to that time the ventilation was weak in some parts, due to breaks to the bottom vein and to the surface in the old section. Only pillars and stumps were being worked and the new section was idle during the year.

Pennsylvania No. 28.—Ventilation and drainage in fairly good condition, except when the ventilation was allowed to fall back for want of a canvas check at some point to keep the air in the face. In some parts the haulage ways were small and congested and skip was being taken off the entire length of the main heading to relieve this condition.

Pennsylvania No. 29.—Ventilation and drainage, fair, with few exceptions of minor importance. All solid work is finished. Only pillars and stumps remain to be removed.

Pennsylvania No. 30.—Ventilation and drainage, fair, with a few exceptions. All solid coal has been exhausted. Only pillars and stumps remain to be removed. During heavy rains, thaws, et cetera, the drainage is much impaired.

Pennsylvania No. 33.—Ventilation, drainage and general conditions, good.

Pennsylvania No. 34.—Ventilation, drainage and general conditions, good. All solid coal has been exhausted. Only a few pillars and stumps remain to be removed.

Pennsylvania No. 35.—Ventilation and drainage, fair. The mine has been very faulty and was closed down during the latter part of the year.

Pennsylvania No. 39.—Ventilation and drainage, fairly good. General condition very satisfactory.

Pennsylvania No. 50.—This mine was opened by the Morrisdale Coal Mining Company over twenty years ago, but owing to the faulty condition of the coal strata it was abandoned. It was opened during the latter part of the year. Ventilation and drainage, fairly good. The second opening has not yet been completed.

EBENSBURG COAL COMPANY

Ebensburg No. 1.—In very good condition.

CARROLLTOWN COAL COMPANY

Victor No. 1.—In very satisfactory condition.

Victor No. 2.—Ventilation and drainage in fair condition, with few exceptions of minor importance.

Victor No. 3.—Ventilation, fairly good; drainage defective, due to limited capacity of pumps during heavy rains, thaws, et cetera.

Victor No. 4.—Ventilation and drainage, fairly good. All solid coal is exhausted. Only pillars and stumps remain to be removed.

Victor No. 6.—Ventilation and drainage, fair. All solid coal is exhausted. Only pillars and stumps remain to be removed.

Victor No. 10.—Ventilation and drainage, fairly good, with a few exceptions of minor importance. A new opening is being made to cut off the old slope haulage, which will make a better grade to tipple.

BARNES AND TUCKER COMPANY

Lancashire No. 3.—This mine was idle for two years, but was put in operation the latter part of the year. Ventilation weak in some parts and drainage defective. All solid coal has been exhausted and only pillars and stumps remain to be removed.

Lancashire No. 6.—Did not come under the law.

Lancashire No. 7.—Ventilation, fair; drainage poor in some parts. All solid coal has been exhausted; only pillars and stumps remain to be removed. Roadways are low and congested.

Lancashire No. 10.—Ventilation and drainage are fairly good, but the roadways are low and congested throughout the old workings.

Lancashire No. 12.—Ventilation and drainage, fairly good in some parts. Roadways are low, especially through the old parts. A great many of the low headings have been repaired and made fairly good where the work has to be extended for some distance. In a general way the mine has been much improved during the year.

Lancashire No. 14.—A new mine opened during the latter part of the year. In good condition.

STERLING COAL COMPANY

Sterling No. 1.—Ventilation and drainage, fair, with a few exceptions. Roadways and airways are congested in some parts and very low.

Sterling No. 3.—The mine was idle until the last two weeks in December when it was put in operation. The second opening closed while the mine was idle and a new opening is now being made. No inspection was made during the year.

Sterling No. 5.—Ventilation and drainage in fairly good condition, with a few exceptions.

Sterling No. 6.—Ventilation and drainage in fairly good condition. In some parts the roadways and airways are low and congested, but they are being improved at the face of the new workings.

CHERRY TREE COAL COMPANY

Victor No. 15.—In fairly good condition, except that the drainage was defective during heavy rains. The pumping capacity being insufficient, but more power has been provided recently for this purpose.

Victor No. 17.—Ventilation was a little weak until the latter part of the year when a new fan was installed, which provided sufficient ventilation. General condition, fairly good.

MADEIRA-HILL COAL MINING COMPANY

Spangler No. 2.—Ventilation, fair; drainage, poor. All solid coal is exhausted; only pillars and stumps remain to be removed.

Spangler No. 3½.—During the latter part of the year the ventilation was weak in some parts. A fan is being installed to improve this condition. Drainage defective in some parts. A new main heading is being driven to cut off the old workings.

Spangler No. 4.—Ventilation and drainage is fairly good, but the haulage roads and airways are low and greatly congested in the old workings.

WATKINS COAL COMPANY

Watkins No. 1.—In very good condition.

RICH HILL COAL COMPANY

Rich Hill No. 1.—In fairly good condition since the new fan was installed the latter part of the year.

Rich Hill No. 2.—Ventilation was weak, but a new fan was installed which greatly improved this condition. Work is still being done on air courses and overcasts are being built to improve the ventilation. Drainage good.

GREENWICH COAL AND COKE COMPANY

Greenwich No. 2.—In fairly good condition, except on second right heading where the haulage road is greatly congested.

Greenwich No. 3.—In fair condition, except that the ventilation was a little weak in the lower end of the mine on my last inspection.

CLEARFIELD BITUMINOUS COAL CORPORATION

West Branch.—In good condition.

DUNCAN SPANGLER COAL COMPANY

Delta.—In good condition.

Blubaker No. 13.—In fairly good condition, except that through the old pillar workings the roadways and airways are greatly congested.

EMPIRE COAL MINING COMPANY

Empire A.—In fairly good condition on my last inspection. Prior to that time the ventilation was weak in some parts.

CYMBRIA COAL COMPANY

Cymbria No. 1.—In fairly good condition, except that the haulage roads and airways are congested through the old workings.

Cymbria No. 2.—In fair condition with a few exceptions of minor importance.

OAK RIDGE COAL AND COKE COMPANY

Oak Ridge No. 1.—In good condition.

Oak Ridge No. 2.—In fairly good condition.

NANTY GLO COAL MINING COMPANY

Nanty Glo No. 2.—In good condition.

LENOX COAL COMPANY

Lenox No. 1.—In fairly good condition, except that the second opening is not completed. A temporary second opening is being used at present.

WOODLAND COAL AND COKE COMPANY

Woodland No. 1.—In good condition.

HASTINGS COAL AND COKE COMPANY

Kinport No. 1.—In good condition.

BEAVER COAL COMPANY

Beaver No. 1—In very dilapidated condition. Ventilation, fair; drainage, poor, with a very soft bottom. All solid coal is exhausted. Only pillars and stumps remain to be removed.

MILLER RUN COAL COMPANY

Miller Run No. 1.—Ventilation is a little weak at times; drainage, fairly good. A new shaft for ventilation is to be sunk near the face of the mine as soon as possible.

DERINGER BROTHERS

Woodland No. 2.—In good condition on my last inspection. Prior to that time the ventilation was weak at the face, where a new opening has been made.

RED TOP COAL COMPANY

Red Top No. 1.—In fairly good condition.

W. A. GOULD AND BROTHER

Black Diamond.—Ventilation was a little weak on my last inspection, but since that time a new airway has been completed, which puts the ventilation in fair condition.

CHESTON COAL COMPANY

Cheston No. 1.—This mine has been in a very dilapidated condition. It did not come under the law for two years until the latter part of this year. A new shaft has been sunk at the face of the mine and the ventilation will be improved when the airway is completed. The haulage roads and airways are small and many improvements must be made to bring it up to a fair standard.

PEERLESS COAL MINING COMPANY

Peerless No. 1.—Ventilation, fair, but drainage on haulage roads defective. The roadways and air courses are greatly congested. All the solid coal is exhausted; only pillars and stumps remain to be removed.

PATTON CLAY MANUFACTURING COMPANY

Patton Clay No. 3.—In fairly good condition. All solid coal is exhausted; only pillars and stumps remain to be removed.

MILSOM COAL COMPANY

Lantzy No. 1.—In fair condition. The mine has been very faulty and is nearly exhausted. Only a few pillars and stumps remain to be removed.

IMPROVEMENTS

PENNSYLVANIA COAL AND COKE CORPORATION

Pennsylvania No. 20.—Drift was partly concreted and retimbered during the latter part of the year.

Pennsylvania No. 21.—Two new openings were completed, one, 6 by 8, for haulage, and the second opening, 6 by 8, for ventilation and traveling way near face of 3rd right heading on north side of mine.

Pennsylvania No. 22.—A new second opening was completed, 6 by 8, for traveling way and ventilation. A new airway was made to connect with fan from right side of main opening.

Pennsylvania No. 28.—A new slope opening 6 by 8, was made for ventilation and traveling way. Installed new power house and boiler, 110 by 46, 3 by 8 inch studding covered with corrugated iron; built a separate engine house of wood, 32 by 30. Built a motor barn, 20 by 40, of reinforced concrete, and a sandhouse of wood equipped with a steam dryer 100-ton capacity. Installed a pair of Connellsville hauling engines, 18 by 24 inches; also one 175 K. W. General Electric generator, 3 short wall Morgan Gardner electric coal cutting machines, two pneumatic punchers, two 6-ton General Electric motors, one Curtis rotary pump.

Pennsylvania No. 39.—Made a new slope opening for traveling. Installed one 7-foot Stine fan, driven by a 10 H. P. steam engine, one 100 K. W. generator and one 5-ton motor.

EBENSBURG COAL COMPANY

Ebensburg No. 1.—A 1,200-foot skip was taken off rock tunnel to complete double track to face. Constructed 14 overcasts of steel and concrete and 108 concrete stoppings. Laid 120,000 bricks to reinforce corners of pillars at junctions of main headings. A 2,400-foot manway driven on B. main heading, a 1,700-foot manway on D main heading, and a 1,600-foot manway on C main heading. Installed one 10-ton Westinghouse motor, two 13-ton Jeffrey motors, 5-C E. 7 short wall electric coal cutting machines, 10 pneumelectric punching machines, 3 Triplex electric pumps, 200 gallon capacity, 3 single electric pumps, 160 gallon capacity. Built two first aid stations inside of mine.

Outside: Installed two Sterling boilers, 370 H. P.; one General Electric Curtis turbine, 750 K. W.; two electric centrifugal pumps, 3,000 gallon capacity for condensing system; one Westinghouse Le Blanch condenser, 1,500 K. W.; two electric centrifugal pumps, 3,000 gallon capacity, for spraying system; one 500 K. W. electric rotary converter; three 500 K. W. electric transformers; two steel chutes and steel rock conveyers at tipple. Brick machine shop equipped with lathes, saws, drill presses, shapers, wheel presses and power hammer, all driven by electricity.

Also installed one Dean triplex electric pump, 250 gallon capacity, pumping against 500-foot head to supply water for plant and town. Added 300 new mine cars.

Built one first aid station at entrance to mine.

STERLING COAL COMPANY

Sterling No. 6.—A new tipple was built to replace the old one, which was destroyed by fire the latter part of the year.

CHERRY TREE COAL COMPANY

Victor No. 15.—Installed two Phoenix boilers, 150 H. P. each, three 6-ton Goodman motors, and two Goodman electric short wall coal cutting machines.

Victor No. 17.—Installed one centrifugal electric pump, 600 gallon capacity; five Aldrich electric pumps, 60 gallon capacity; one fan motor, 50 H. P.; one electric hoist, 6 H. P.; two 8-ton Goodman motors; four Goodman electric short wall cutting machines; one 300 K. W. Chalmers generator set; six pneumelectric coal cutting machines.

MADEIRA-HILL COAL MINING COMPANY

Spangler No. 3½.—Installed one motor set, 150 K. W.; two Jeffrey motors, one 6-ton and one 8-ton; one fan motor, 10 H. P.; one electric pump, 10 H. P., 60 gallon capacity; three Goodman electric short wall coal cutting machines.

Spangler No. 4.—Installed one Jeffrey fan, 10 by 6, and three electric pumps, 10 H. P., 60 gallon capacity.

WATKINS COAL COMPANY

Watkins No. 1.—Built a new power house of stone, 30 by 60, and sunk a shaft for ventilation for F section, 8 by 8, in clear 40 feet deep.

RICH HILL COAL COMPANY

Rich Hill No. 1.—Installed motor generator set, 200 K. W.; five short wall mining machines; seven electric motors, five 5-ton and two 7-ton; built a stone power house, a stone motor barn, and a blacksmith and repair shop and mine office combined. Installed a new Stine fan, 12 by 4, driven by a 50 K. W. motor; made three new openings, one haulage opening, one fan drift and one traveling way. A new tipple and siding has been completed to cut off the old No. 1 mine. Also a line of new stoppings were built. Haulage roads were repaired and remodeled.

CLEARFIELD BITUMINOUS COAL CORPORATION

West Branch.—Installed two generators and engines, each 250 K. W.; one generator set, 250 K. W., and transformer station at slope. A new brick power house was built and a 100 K. W. motor installed to drive the fan.

CYMBRIA COAL COMPANY

Cymbria No. 1.—Installed one 200 K. W. generator set and four transformers.

LENOX COAL COMPANY

Lenox No. 1.—Installed one generator set, 100 K. W., and one motor on fan, 10 H. P.

HASTINGS COAL AND COKE COMPANY

Kinport No. 1.—A new drift opening was made at face of 6th left heading for ventilation and traveling way.

DERINGER BROTHERS

Woodland No. 2.—A new drift opening, 6 by 7, was made at the face for traveling way, drainage and ventilation.

CHESTON COAL COMPANY

Cheston No. 1.—A new shaft opening, 6 by 6, was made for ventilation at the face.

PROSECUTIONS FOR VIOLATION OF THE MINING LAWS

September 4.—Toney Damas, Italian, miner, Pennsylvania No. 22 mine, Pennsylvania Coal and Coke Corporation. Charge: Riding on loaded cars. Entered plea of guilty and was sentenced to pay a fine of $10.00 and costs and undergo imprisonment for thirty days in the county jail.

September 4.—Charles Troby, Slavonian, miner, Greenwich No. 2 mine, Greenwich Coal and Coke Company. Charge: Undermining coal without securing it with sprags or otherwise. Entered plea of guilty and was sentenced to pay a fine of $25.00 and costs and undergo imprisonment for three months in the county jail.

September 4.—Mike Stromcahak, Slavonian, miner, Ebensburg No. 1 mine, Ebensburg Coal Company. Charge: Undermining coal without spragging it or securing it against falling. Entered plea of guilty and was sentenced to pay a fine of $10.00 and costs and undergo imprisonment for thirty days in the county jail.

December 30.—Harry Jackson, American, triprider, Greenwich No. 3 mine, Greenwich Coal and Coke Company. Charge: Neglected to place drag on rear end of trip. Entered plea of guilty and gave bail for his appearance at court.

MINE FOREMEN'S, ASSISTANT MINE FOREMEN'S AND FIRE BOSSES' EXAMINATIONS

The annual examination of applicants for certificates of qualification as mine foremen, assistant mine foremen and fire bosses was held in the Miners' Hall, Patton, May 6, 7 and 8. The Board of Examiners was composed of Alexander Monteith, Inspector; Timothy McCarthy, Superintendent.

There were 41 applicants for certificates of qualification as mine foremen and assistant mine foremen, and 9 applicants for certificates of qualification as fire bosses. The following persons passed a satisfactory examination and were granted certificates:

MINE FOREMEN

First Grade

John V. Maginnis, Patton; William W. Wetmore, Barnesboro.

Second Grade

Joseph Maxwell, Carnwath; William Martin, William J. Bulloch, Patton; William Easton, David Leadbetter, William John Todhunter, Barnesboro; Arvid Anderson, Glen Richey; Michael C. Kelly, John G. Kelly, Carrolltown; James Cowan, St. Benedict.

ASSISTANT MINE FOREMEN

Ethan A. Lowmaster, Thomas Anderson, Garman's Mills; Walter H. Ellis, Elmora.

FIRE BOSSES

Ethan A. Lowmaster, Thomas Anderson, Garman's Mills; John J. Sullivan, Spangler; Michael Sarnoskie, Barnesboro; Dennis J. Stolz, Carrolltown; William J. Bulloch, Patton; David M. Price, Elmora.

SIXTEENTH DISTRICT

FAYETTE COUNTY

Brownsville, Pa., February 14, 1914.

Hon. James E. Roderick, Chief of Department of Mines:

Sir: I have the honor to transmit herewith my annual report of the Sixteenth Bituminous District for the year ending December 31, 1913, as required by the Act of Assembly of June 9, 1911.

Respectfully submitted,

W. H. HOWARTH,
Inspector.

SUMMARY OF STATISTICS

Number of mines,	37
Number of mines in operation,	32
Number of tons of coal shipped to market,	1,254,345
Number of tons used at mines for steam and heat,	156,125
Number of tons sold to local trade and used by employes,.	30,023
Number of tons used in the manufacture of coke,	5,385,233
Number of tons of coal produced,	6,825,726
Number of tons of coke produced,	3,596,103
Number of coke ovens,	6,232
Number of coke ovens in operation,	5,245
Number of tons of coal produced by pick mining,	2,929,043
Number of tons produced by compressed air machines,...	2,380,168
Number of tons produced by electrical machines,	1,516,515
Number of persons employed inside of mines,	4,752
Number of persons employed outside, including coke workers,	2,105
Number of persons employed at manufacture of coke, ...	1,106
Number of fatal accidents inside of mines,	27
Number of fatal accidents outside,	7
Number of non-fatal accidents inside of mines,	29
Number of non-fatal accidents outside,	3
Number of tons of coal produced per fatal accident inside,	252,805
Number of tons produced per fatal accident outside, ...	975,104
Number of tons produced per fatal accident inside and outside,	200,757
Number of persons employed per fatal accident inside, ..	176
Number of persons employed per fatal accident outside, .	301
Number of persons employed per fatal accident inside and outside,	202
Number of persons employed per non-fatal accident inside,	164
Number of persons employed per non-fatal accident outside,	702
Number of persons employed per non-fatal accident inside and outside,	214
Number of wives made widows,	16
Number of children made orphans,	35
Number of steam locomotives used inside of mines,	....
Number of steam locomotives used outside,	7
Number of compressed air locomotives used inside,	38
Number of compressed air locomotives used outside,	....
Number of electric motors used inside,	29
Number of electric motors used outside,	7
Number of gasoline locomotives used inside,	....
Number of fans in use,	30
Number of furnaces in use,	....
Number of gaseous mines in operation,	25
Number of non-gaseous mines in operation,	7
Number of new mines opened,	1
Number of old mines abandoned,	3

TABLE A

PRODUCTION OF COAL

Names of Operators	Tons
H. C. Frick Coke Company,	1,168,951
Thompson Connellsville Coke Company,	694,792
Tower Hill Connellsville Coke Company,	621,278
Connellsville Central Coke Company,	555,644
Taylor Coal and Coke Company,	479,872
Republic Iron and Steel Company,	462,612
Monongahela River Consolidated Coal and Coke Company,	385,426
Brier Hill Coke Company,	381,990
Orient Coke Company,	372,794
W. Harry Brown,	358,920
W. J. Rainey,	208,385
La Belle Coke Company,	187,639
Struthers Coal and Coke Company,	167,364
Century Coke Company,	147,615
Isabella Connellsville Coke Company,	126,390
Union Connellsville Coke Company,	111,248
Hustead-Semans Coal and Coke Company,	109,806
Etna Connellsville Coke Company,	90,758
Henderson Coal Company,	73,461
Prospect Coal and Coke Company,	38,972
Brownsville Coke Company,	32,367
Sunshine Coal and Coke Company,	26,288
Champion Connellsville Coke Company,	15,079
Luzerne Coal and Coke Company,	8,075
Total,	6,825,726

Production by Counties

Fayette,	6,825,726

TABLE B.—Fatal and non-fatal accidents inside and outside of mines; number of tons of coal produced per accident; number of persons employed; number employed per accident

Names of Operators	Fatal Accidents			Non-Fatal Accidents			Tons of coal produced per fatal accident inside	Tons of coal produced per non-fatal accident inside	Number of employes inside	Number of employes outside	Total number of employes	Number of employes inside per fatal accident	Number of employes outside per fatal accident	Number of employes inside per non-fatal accident	Number of employes outside per non-fatal accident
	Inside	Outside	Total	Inside	Outside	Total									
H. C. Frick Coke Co.,	2	......	2	1	......	1	584,476	1,168,951	624	177	801	312	....	624	....
Thompson Connellsville Coke Co.,	3	2	5	2	......	2	231,597	347,396	467	171	638	156	86	234	....
Tower Hill Connellsville Coke Co.,	1	1	2	3	......	3	621,278	207,093	447	284	731	447	284	149	....
Connellsville Central Coke Co.,	1	......	1	2	......	2	555,644	277,822	307	166	473	307	....	154	....
Taylor Coal and Coke Co.,	......	......	......	1	......	1	....	479,872	228	108	336	....	....	228	....
Republic Iron and Steel Co.,	......	......	......	3	1	4	....	154,204	355	176	531	....	....	118	176
Monongahela River Consolidated Coal and Coke Co.,	1	......	1	......	......	......	385,426	....	358	52	410	358	....	....	....
Brier Hill Coke Co.,	1	......	1	2	......	2	381,990	190,995	388	171	559	388	....	194	....
Orient Coke Co.,	1	......	1	2	1	3	372,794	186,397	272	154	426	272	....	136	154
W. Harry Brown,	2	2	4	2	......	2	179,460	179,460	220	114	334	110	57	110	....
W. J. Rainey,	3	1	4	3	......	3	69,462	69,462	123	63	186	41	63	41	....
La Belle Coke Co.,	1	......	1	......	......	......	187,639	....	120	77	197	120	....	....	....
Struthers Coal and Coke Co.,	4	1	5	2	......	2	41,841	83,682	158	40	198	38	40	77	....
Century Coke Co.,	2	......	2	2	......	2	73,808	73,808	95	53	148	48	....	48	....
Isabella Connellsville Coke Co.,	......	......	......	2	......	2	....	63,195	146	64	210	....	....	73	....
Union Connellsville Coke Co.,	1	......	1	......	......	......	111,248	....	91	30	121	91	....	....	....
Hustead-Semans Coal and Coke Co.,	1	......	1	......	......	......	109,806	....	95	61	156	95	....	....	....
Etna Connellsville Coke Co.,	......	......	......	1	......	1	....	90,758	68	45	113	....	....	68	....
Prospect Coal and Coke Co.,	1	......	1	1	......	1	38,972	38,972	46	31	77	46	....	46	....
Brownsville Coke Co.,	2	......	2	......	1	1	16,184	....	81	17	48	16	....	....	17
Miscellaneous Companies,	......	......	......	......	......	......	....	....	118	51	169	....	....	....	....
Totals and averages for district,	27	7	34	29	3	32	252,806	235,370	4,752	2,105	6,857	176	301	164	702

TABLE C.—Classification of Fatal Accidents Inside and Outside of Mines

	Months													
	January	February	March	April	May	June	July	August	September	October	November	December	Totals	Percentages
Causes of Accidents Inside														
Falls of coal, ...	....	....	....	....	....	....	....	....	....	1	1	....	2	7.41
Falls of slate, ...	2	1	....	1	....	....	....	1	1	1	....	....	7	25.92
Falls of roof, ...	....	....	1	....	2	1	....	1	1	3	....	1	10	37.04
Mine cars, ...	....	....	....	....	....	1	....	1	....	1	5	....	8	29.63
Totals, ...	2	1	1	1	2	2	....	3	3	6	6	1	27	100.00
Causes of Accidents Outside														
Cars, ...	1	....	....	....	1	....	....	....	....	....	....	....	2	28.57
Machinery, ...	....	1	....	....	....	2	....	....	....	....	....	....	3	42.86
Electricity, ...	....	....	....	....	....	....	....	....	1	....	....	....	1	14.29
Gasoline explosions, ..	....	....	....	....	....	....	1	....	....	....	....	....	1	14.28
Totals, ...	1	1	....	....	1	2	1	....	1	....	....	....	7	100.00
Grand totals inside and outside, ...	3	2	1	1	3	4	1	3	3	6	6	1	34	......

TABLE D.—Classification of Non-Fatal Accidents Inside and Outside of Mines

	Months													
	January	February	March	April	May	June	July	August	September	October	November	December	Totals	Percentages
Causes of Accidents Inside														
Falls of coal, ...	....	....	1	....	....	....	....	....	....	....	....	....	1	3.45
Falls of slate, ...	2	....	....	2	....	....	....	2	....	1	1	1	9	31.03
Falls of roof, ...	....	....	....	....	....	....	1	2	1	1	....	....	5	17.24
Mine cars, ...	....	1	2	1	2	2	1	....	....	....	1	....	10	34.48
Machinery, ...	....	1	....	....	....	....	....	....	....	....	....	....	1	3.45
Pipe bursting, ...	....	....	....	....	....	1	....	....	....	....	....	....	1	3.45
Struck by post, ...	....	....	....	....	....	....	....	1	....	....	....	....	1	3.45
Struck by timber, ...	....	....	....	....	....	....	....	....	....	....	1	....	1	3.45
Totals, ...	2	2	3	3	2	3	2	5	1	2	3	1	29	100.00
Causes of Accidents Outside														
Cars, ...	....	....	....	....	1	....	....	1	....	....	....	1	3	100.00
Totals, ...	....	....	....	....	1	....	....	1	....	....	....	1	3	100.00
Grand totals inside and outside, ...	2	2	3	3	3	3	2	6	1	2	3	2	32	......

TABLE E.—Occupations of Persons Killed or Fatally Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
Inside													
Miners,	2	1	1	1	1	....	....	2	2	3	1	1	15
Machine loaders,	....	....	....	....	....	....	....	1	....	....	....	....	1
Drivers and runners,	....	....	....	....	....	....	....	....	....	....	2	....	2
Snappers,	....	....	....	....	....	1	....	....	....	1	2	....	4
Laborers,	....	....	....	....	1	1	....	....	....	1	....	....	3
Timbermen,	....	....	....	....	....	....	....	....	....	1	....	....	1
Motormen,	....	....	....	....	....	....	....	....	....	....	1	....	1
Totals,	2	1	1	1	2	2	....	3	2	6	6	1	27
Outside													
Engineers and firemen,	....	....	....	....	1	....	....	....	....	....	....	....	1
Coke employes,	1	1	....	....	....	1	....	....	1	....	....	....	4
Laborers,	....	....	....	....	....	1	....	....	....	....	....	....	1
Electricians,	....	....	....	....	....	....	1	....	....	....	....	....	1
Totals,	1	1	....	....	1	2	1	....	1	....	....	....	7
Grand totals inside and outside,	3	2	1	1	3	4	1	3	3	6	6	1	34

TABLE F.—Occupations of Persons Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
Inside													
Fire bosses,	....	....	....	....	....	....	....	1	....	....	....	....	1
Miners,	2	....	1	2	....	....	1	1	1	1	....	1	10
Machine loaders,	....	....	....	....	....	1	....	....	....	....	1	....	2
Machine scrapers,	....	1	....	....	....	....	....	....	....	....	....	....	1
Drivers and runners,	....	1	1	....	2	1	1	1	....	....	1	....	8
Laborers,	....	....	1	1	....	1	....	2	....	....	1	....	6
Timbermen,	....	....	....	....	....	....	....	....	....	1	....	....	1
Totals,	2	2	3	3	2	3	2	5	1	2	3	1	29
Outside													
Engineers and firemen,	....	....	....	....	....	....	....	1	....	....	....	....	1
Coke employes,	....	....	....	....	1	....	....	....	....	....	....	....	1
Laborers,	....	....	....	....	....	....	....	....	....	....	....	1	1
Totals,	....	....	....	....	1	....	....	1	....	....	....	1	3
Grand totals inside and outside,	2	2	3	3	3	3	2	6	1	2	3	2	32

TABLE G.—Nationality of Persons Killed or Fatally Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
American,	1	....	....	....	1	2	1	....	....	1	1	....	7
Polish,	1	....	....	....	....	1	....	....	....	....	....	....	2
Hungarian,	....	1	....	....	....	....	....	....	1	....	1	....	3
Italian,	....	....	....	....	....	....	....	1	....	1	....	....	2
Slavonian,	....	1	1	....	....	1	....	1	1	2	2	....	9
Austrian,	....	....	....	1	....	....	....	....	....	....	1	....	2
Russian,	....	....	....	....	....	....	....	1	1	....	....	....	2
Roumanian,	1	....	....	....	1	....	....	....	....	....	....	....	2
Bohemian,	....	....	....	....	....	....	....	....	....	1	....	....	1
Croatian,	....	....	....	....	1	....	....	....	....	....	....	....	1
Horwat,	....	....	....	....	....	....	....	....	....	1	1	1	3
Totals,	3	2	1	1	3	4	1	3	3	6	6	1	34

TABLE H.—Nationality of Persons Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
American,	....	1	1	....	....	....	....	2	....	....	....	....	4
English,	....	....	....	....	....	....	....	1	....	....	....	....	1
German,	....	....	....	....	....	....	....	....	....	1	....	....	1
Polish,	....	....	....	....	....	1	....	....	....	....	1	....	2
Hungarian,	....	....	....	....	1	....	....	....	....	....	....	....	1
Italian,	1	....	....	....	1	1	....	1	....	1	1	1	7
Slavonian,	....	1	1	2	1	1	....	2	....	....	1	....	9
Austrian,	....	....	....	1	....	....	1	....	1	....	....	....	3
Russian,	....	....	....	....	....	....	1	....	....	....	....	....	1
Roumanian,	1	....	....	....	....	....	....	....	....	....	....	....	1
Horwat,	....	....	1	....	....	....	....	....	....	....	....	1	2
Totals,	2	2	3	3	3	3	2	6	1	2	3	2	32

TABLE I.—Operators and mines, kind of openings, type and size of fans, size of furnaces, volume of air produced by fan or furnace per minute, number of splits of air currents and number of persons employed inside

Names of Operators and Mines	Kind of opening	Gaseous or non-gaseous	Method of ventilation	Diameter of fan in feet and inches	Width of blades in feet and inches	Depth of blades in feet and inches	Number of revolutions per minute	Water gauge developed—in inches	Name of fan	Power used	Number of splits of air currents	Number of cubic feet of air per minute entering the mine at inlet	Total number of cubic feet of air per minute circulating in all the splits	Number of cubic feet of air per minute passing out at outlet	Number of persons employed inside
H. C. Frick Coke Co.															
Bridgeport, ...	Shaft, ...	Gaseous, ..	Fan, ...	20.0	8.0	5.0	110	2.5	Capell, ...	Steam, ..	10	185,000	144,000	196,000	206
Filbert Nos. 1 and 2, ...	Shaft, ...	Gaseous, ..	Fan, ...	26.0	7.0	7.0	45	1.5	Capell, ...		4	117,600	76,500	118,000	302
Dearth No. 1, ...	Drift, ...	Non-gas., .	Fan, ...	20.0	6.0	5.0	70	0.7	Guibal, ...		3	86,800	69,400	89,600	117
Thompson Connellsville Coke Co.															
Thompson No. 1, ...	Shaft, ...	Gaseous, ..	Fan, ...	18.0	8.0	8.0	90	1.8	Capell, ...	Steam, ...	4	220,500	95,900	230,500	242
Thompson No. 2, ...	Shaft, ...	Gaseous, ..	Fan, ...	18.0	8.0	8.0	90	1.8	Capell, ...	Steam, ...	4	176,000	92,000	186,000	225
Tower Hill Connellsville Coke Co.															
Tower Hill No. 1, ...	Shaft, ...	Gaseous, ..	Fan, ...	26.0	7.0	7.5	60	......	Lepley, ...	Steam, ...	6	172,000	97,000	173,000	229
Tower Hill No. 2, ...	Shaft, ...	Gaseous, ..	Fan, ...	26.0	7.0	7.5	45	......	Lepley, ...	Steam, ...	3	125,400	85,000	126,000	218
Connellsville Central Coke Co.															
Herbert, ...	Shaft, ...	Gaseous, ..	Fan, ...	18.0	8.0	4.0	65	......	Clifford, ...	Steam, ...	4	146,000	125,000	148,000	238
Low Phos No. 1, ...	Slope, ...	Non-gas., .	Fan, ...	20.0	8.0	5.0	60	......	Lepley, ...	Steam, ...	2	80,000	42,000	80,000	69
Taylor Coal and Coke Co.															
Searight, ...	Shaft, ...	Gaseous, ..	Fan, ...	18.0	8.0	7.0	70	0.7	Capell, ...	Steam, ...	11	240,000	190,000	275,000	228
Republic Iron and Steel Co.															
Republic, ...	Shaft, ...	Gaseous, ..	Fan, ...	20.0	8.0	9.5	100	2.4	Robinson, .	Steam, ...	7	242,000	122,000	248,000	255

Monongahela River Consolidated Coal and Coke Co.															
Albany, ...	Slope,.....	Gaseous, ..	Fan, ...	12.0	5.0	5.0	140	1.8	Robinson, .	Steam,......	4	57,400	46,180	61,560	211
Chamouni, ...	Slope,.....	Gaseous, ..	Fan, ...	20.0	6.0	5.0	54	0.8	Guibal, ...	Steam,......	4	49,600	41,140	49,920	147
Brier Hill Coke Co. Brier Hill, ...	Shaft, ...	Gaseous, ..	Fan, ...	18.0	8.0	6.0	100	2.0	Capell, ...	Steam,......	5	198,200	146,100	205,000	388
Orient Coke Co. Orient, ...	Shaft, ...	Gaseous, ..	Fan, ...	20.0	8.0	7.0	90	2.2	Capell, ...	Steam,......	6	160,000	96,000	172,000	272
W. Harry Brown Alicia, ...	Shaft, ...	Gaseous, ..	Fan, ...	18.0	7.0	7.0	80	1.3	Lepley, ...	Steam,......	4	150,000	120,000	165,000	220
W. J. Rainey Allison Nos. 1 and 2, ...	Shaft, ...	Gaseous, ..	Fan, ...	35.0	8.0	10.0	80	0.5	Chalmers, .	Steam,......	2	84,000	60,000	90,200	123
La Belle Coke Co. La Belle, ...	Drift, ...	Gaseous, ..	Fan, ...	10.0	2.0	2.5	200	0.5	Stine, ...	Electricity,	2	42,000	32,000	42,000	120
Struthers Coal and Coke Co. Struthers, ...	Shaft, ...	Gaseous, ..	Fan, ...	12.0	7.0	8.0	120	0.8	Capell, ...	Steam,......	8	100,500	86,000	105,000	153
Century Coke Co. Century, ...	Slope,.....	Gaseous, ..	Fan, ...	12.5	4.7	4.5	124	1.5	Capell, ...	Electricity,	2	59,000	46,000	60,000	95
Isabella Connellsville Coke Co. Isabel, ...	Shaft, ...	Gaseous, ..	Fan, ...	26.0	7.0	12.0	50	1.0	Lepley, ...	Steam,......	2	85,000	65,000	95,000	146
Union Connellsville Coke Co. Katharine, ...	Shaft, ...	Gaseous, ..	Fan, ...	16.0	7.0	4.5	70	0.8	Lepley, ...	Steam,......	2	88,000	75,000	91,000	91
Hustead-Semans Coal and Coke Co. Hustead, ...	Slope,.....	Gaseous, ..	Fan, ...	16.0	7.0	4.0	80	1.0	Capell, ...	Steam,......	2	96,400	58,000	97,000	95
Etna Connellsville Coke Co. Garwood, ...	Shaft, ...	Gaseous, ..	Fan, ...	13.0	7.0	6.0	100	0.5	Capell, ...	Steam,......	2	41,450	25,680	48,750	68
Henderson Coal Co. Umpire, ...	Drift, ...	Gaseous, ..	Fan, ...	4.0	2.0	1.5	160	0.8	Robinson, .	Electricity,	1	35,000	16,000	*34,200	50
Prospect Coal and Coke Co. Solon, ...	Slope,.....	Non-gas., .	Fan, ...	12.0	3.0	8.5	68	0.3	Brazil, ...	Compressed air,	1	23,500	17,400	23,545	46
Brownsville Coke Co. Ganns, ...	Slope,.....	Non-gas., .	Fan, ...	8.0	1.6	1.5	220	0.6	Stine, ...	Electricity,	1	25,516	15,600	26,460	31

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*Outlet measurement reduced on account of surface breaks.

TABLE I.—Continued

Names of Operators and Mines	Kind of opening	Gaseous or non-gaseous	Method of ventilation	Diameter of fan in feet and inches	Width of blades in feet and inches	Depth of blades in feet and inches	Number of revolutions per minute	Water gauge developed—in inches	Name of fan	Power used	Number of splits of air currents	Number of cubic feet of air per minute entering the mine at inlet	Total number of cubic feet of air per minute circulating in all the splits	Number of cubic feet of air per minute passing out at outlet	Number of persons employed inside
Sunshine Coal and Coke Co. Eleanor, ...	Drift, ...	Non-gas., .	Fan, ...	16.0	4.0	6.0	90	0.3	Brazil, ...	Steam,......	1	15,000	15,000	15,000	26
Champion Connellsville Coke Co. Champion, ...	Drift, ...	Non-gas., .	Fan, ...	12.0	4.4	2.10	85	0.1	Brazil, ...	Electricity,	2	27,000	20,000	28,000	24
Luzerne Coal and Coke Co. Luzerne, ...	Slope,.....	Non-gas., .	Fan, ...	8.0	2.5	1.3	266	0.2	Jeffrey, ...	Electricity,	1	46,000	46,000	46,000	18

TABLE J.—Mines using coal cutting machines, power used, geological and local names of seams, thickest and thinnest seams where machines are used, and the approximate number of tons produced by machines

Names of Operators	Names of Mines	Kind of opening	Gaseous or non-gaseous	Number of mining machines used	Power used by machines	Geological and local names of seams	Average thickness in inches	Height of Seam in Inches		Approximate number of tons produced by machines
								Thickest	Thinnest	
H. C. Frick Coke Co., ...	Bridgeport, ...	Shaft, ...	Gaseous, ..	11	Electricity, ...	Pittsburgh, .	81	102	60	380,446
	Filbert Nos. 1 and 2, ...	Shaft, ...	Gaseous, ..	18	Compressed air,		87	99	75	382,835
	Dearth No. 1, ...	Drift, ...	Non-gas., .	3	Electricity, ...		102	120	84	96,148
Totals, ...	....	....	....	32	....	....	......	......	......	859,429
Thompson Connellsville Coke Co., ..	Thompson No. 1, ...	Shaft, ...	Gaseous, ..	10	Compressed air,	Pittsburgh, ...	99	108	90	250,126
	Thompson No. 2, ...	Shaft, ...	Gaseous, ..	16			90	108	72	157,730
Totals, ...	....	....	....	26	....	....	......	......	......	407,856
Tower Hill Connellsville Coke Co.,	Tower Hill No. 1, ...	Shaft, ...	Gaseous, ..	14	Compressed air,	Pittsburgh, ...	84	96	72	115,493
	Tower Hill No. 2, ...	Shaft, ...	Gaseous, ..	16			84	96	72	226,846
Totals, ...	....	....	....	30	....	....	......	......	......	342,339
Connellsville Central Coke Co., ...	Herbert, ...	Shaft, ...	Gaseous, ..	10	Compressed air,	Pittsburgh, ...	99	114	84	224,272
Taylor Coal and Coke Co., ...	Searight, ...	Shaft, ...	Gaseous, ..	5	Compressed air,	Pittsburgh, ...	107	118	96	118,418
				2	Electricity, ...					118,418
Totals, ...	....	....	....	7	....	....	......	......	......	236,836

TABLE J.—Continued

Names of Operators	Names of Mines	Kind of opening	Gaseous or non-gaseous	Number of mining machines used	Power used by machines	Geological and local names of seams	Average thickness in inches	Height of Seam in Inches		Approximate number of tons produced by machines
								Thickest	Thinnest	
Republic Iron and Steel Co., ...	Republic, ...	Shaft, ...	Gaseous, ..	18	Compressed air,	Pittsburgh, ...	90	108	72	277,567
Monongahela River Consolidated Coal and Coke Co., ...	Albany, ... Chamouni, ...	Slope, ... Slope, ...	Gaseous, .. Gaseous, ..	2 2	Electricity, ...	Pittsburgh, ...	86 84	100 96	72 72	45,835 45,835
Totals, ...	....	....	....	4	....	....	......	......	......	91,670
Brier Hill Coke Co., ...	Brier Hill, ...	Shaft, ...	Gaseous, ..	10	Compressed air,	Pittsburgh, ...	91	108	74	110,000
Orient Coke Co., ...	Orient, ...	Shaft, ...	Gaseous, ..	10	Compressed air,	Pittsburgh, ...	90	108	72	182,106
W. Harry Brown, ...	Alicia, ...	Shaft, ...	Gaseous, ..	9	Electricity, ...	Pittsburgh, ...	96	96	96	358,920
W. J. Rainey, ...	Allison Nos. 1 and 2, ...	Shaft, ...	Gaseous, ..	12	Compressed air,	Pittsburgh, ...	88	108	68	208,385
La Belle Coke Co., ...	La Belle, ...	Drift, ...	Gaseous, ..	6	Electricity, ...	Pittsburgh, ...	88	92	84	114,422
Century Coke Co., ...	Century, ...	Slope	Gaseous, ..	1	Electricity, ...	Pittsburgh, ...	106	108	105	72,980
Isabella Connellsville Coke Co., ...	Isabel, ...	Shaft, ...	Gaseous, ..	11	Compressed air,	Pittsburgh, ...	90	108	72	126,390

Union Connellsville Coke Co., ...	Katharine, ...	Shaft, ...	Gaseous, ..	1	Electricity,......	Pittsburgh, ...	90	96	84	16,396
Husted-Semans Coal and Coke Co.,	Hustead, ...	Slope,.....	Gaseous, ..	7	Electricity,......	Pittsburgh, ...	87	96	78	109,806
Etna Connellsville Coke Co., ...	Garwood, ...	Shaft, ...	Gaseous, ..	6	Electricity,......	Pittsburgh, ...	97	101	98	90,758
Henderson Coal Co., ...	Umpire, ...	Drift, ...	Gaseous, ..	2	Electricity,......	Pittsburgh, ...	88	98	78	58,476
Luzerne Coal and Coke Co., ...	Luzerne, ...	Slope,.....	Non-gas., .	1	Electricity,......	Pittsburgh, ...	72	84	60	8,075
Grand totals, ...	....	....	....	203	....	....	......	......	......	3,896,683

TABLE 1.—Operators, Location of Mines, Railroads, etc.

Names of Operators and Mines	County	Name of General Superintendent	Post Office	Name of Superintendent	Post Office	Railroad to Mine
H. C. Frick Coke Co.						
Bridgeport, ...	Fayette, ...	W. H. Clingerman,..	Scottdale, ...	W. C. Hood, ...	Brownsville, ...	Monongahela
Filbert Nos. 1 and 2, ...				Paul Jones, ...	New Salem, ...	
Dearth No. 1, ...				Clarence Patterson,.	Uniontown, R. F. D No. 4.	
Dearth No. 2,†				....	....	
Crowthers,†				....	....	
Sarah,†				....	....	
Thompson Connellsville Coke Co.						
Thompson Nos. 1 and 2,..	Fayette, ...	Andrew A. Thompson,	New Salem, ...	Andrew A. Thompson,	New Salem, ...	Monongahela
Tower Hill Connellsville Coke Co.						
Tower Hill No. 1, ...	Fayette, ...	J. R. Thompson, ...	Republic, ...	J. R. Thompson, ...	Republic, ...	Monongahela
Tower Hill No. 2, ...				J. T. Harshman, ...		
Connellsville Central Coke Co.						
Herbert, ...	Fayette, ...	C. E. Borts, ...	New Salem, ...	C. E. Borts, ...	New Salem, ...	Monongahela
Low Phos No. 1, ...						
Low Phos No. 2,*						
Taylor Coal and Coke Co.						
Searight, ...	Fayette, ...	D. B. Stauft, ...	Uniontown, ...	J. J. McIntyre, ...	Uniontown. R. F. D. No. 4.	Monongahela
Republic Iron and Steel Co.						
Republic, ...	Fayette, ...	George W. Gehres, ..	Republic, ...	H. P. Zeller, ...	Republic, ...	Monongahela
Monongahela River Consolidated Coal and Coke Co.						
Albany, ...	Fayette, ...	George W. Schluederberg.	Pittsburgh, ...	E. S. DeArmit, ...	South Brownsville, ..	P. and L. E.
Chamouni, ...						
Brier Hill Coke Co.						
Brier Hill, ...	Fayette, ...	Thomas McCaffrey, ..	Brier Hill, ...	R. F. McKay, ...	Brier Hill, ...	Monongahela
Orient Coke Co.						
Orient, ...	Fayette, ...	R. M. Fry, ...	Uniontown, ...	Charles Oppermann,..	Orient, ...	Monongahela

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†Idle.
*Abandoned.

W. Harry Brown Alicia,	Fayette,	W. C. Reynolds,	Alicia,	W. C. Reynolds,	Alicia,	Monongahela
W. J. Rainey Allison Nos. 1 and 2,	Fayette,	L. L. Willard,	Uniontown,	Ben Holliday,	Allison,	Monongahela
La Belle Coke Co. La Belle,	Fayette,	R. W. McCasland,	Steubenville, Ohio,	Alexander Peterson,	La Belle,	Monongahela
Struthers Coal and Coke Co. Struthers,	Fayette,	W. C. Runyon,	New York, N. Y.,	John Shults,	Fairbank,	Monongahela
Century Coke Co. Century,	Fayette,	C. E. Lenhart,	New Salem,	D. C. Sheets,	Brownsville,	Monongahela
Isabella Connellsville Coke Co. Isabel,	Fayette,	J. D. O'Neil,	Pittsburgh,	W. J. Kearnes,	Brownsville,	Monongahela
Union Connellsville Coke Co. Katharine,	Fayette,	William Allison,	Uniontown,	Michael McPartland,	Brownsville, R. F. D. No. 29.	Monongahela
Hustead-Semans Coal and Coke Co. Hustead,	Fayette,	William Goodfellow,	East Millsboro,	William Goodfellow,	East Millsboro,	Monongahela
Etna Connellsville Coke Co. Garwood,	Fayette,	A. R. Miller,	Connellsville,	C. L. Patterson,	Brownsville,	Monongahela
Henderson Coal Co. Umpire,	Fayette,	Arthur McCune,	Charleroi,	C. C. McVicker,	Brownsville,	Monongahela
Prospect Coal and Coke Co. Solon,	Fayette,	W. A. Stone,	Uniontown,	J. T. Dawson,	Uniontown, R. F. D. No. 4.	Monongahela
Brownsville Coke Co. Ganns,	Fayette,	J. W. Abraham,	Uniontown,	S. J. Stone,	Brownsville,	Monongahela
Sunshine Coal and Coke Co. Eleanor,	Fayette,	J. B. Topham,	Uniontown,	J. B. Topham,	Uniontown,	Monongahela
Champion Connellsville Coke Co. Champion,	Fayette,	W. F. Pickard,	Brownsville,	A. B. Nedrow,	Brownsville,	Monongahela
Luzerne Coal and Coke Co. Luzerne,‡	Fayette,	W. F. Affelder,	Pittsburgh,	M. K. Goodridge,	East Millsboro,	Monongahela
Peoples Coal Co. Pike,†	Fayette,	G. H. Thomas,	Pittsburgh,	G. H. Thomas,	Pittsburgh,	Monongahela, P. V. and C. and P. and L. E.

‡New mine. †Idle.

TABLE 2.—Number of tons of coal mined and tons of coke produced, number of days worked, number of persons employed, number killed and injured, quantity of powder, dynamite and permissible explosives used, etc.

Names of Operators and Mines	County	Number of tons of coal shipped to market	Number of tons used at mines for steam and heat	Number of tons sold to local trade and used by employes	Number of tons used in manufacture of coke	Total production of coal in tons	Total production of coke in tons	Number of coke ovens	Number of days worked	Number of employes	Number of fatal accidents	Number of non-fatal accidents	Explosives			Number of horses and mules
													Number of pounds of powder used	Number of pounds of dynamite used	Number of pounds of permissible explosives used	
H. C. Frick Coke Co.																
Bridgeport, ...	Fayette, ...	321,197	9,587	693	82,051	413,528	51,282	100	285	269	....	....	....	....	35,862	....
Filbert Nos. 1 and 2,....		455,471	15,895	1,269	....	472,635	....	......	296	337	2	....	....	....	48,229	52
Dearth No. 1, ...		639	882	3,345	277,922	282,788	173,701	250	289	195	....	1	....	....	24,000	28
Totals, ...	....	777,307	26,364	5,307	359,978	1,168,951	224,983	350	......	801	2	1	....	....	108,091	80
Thompson Connellsville Coke Co.																
Thompson No. 1, ...	Fayette, ...	....	11,383	1,249	422,370	435,002	263,137	400	281	330	2	1	....	....	30,500	45
Thompson No. 2, ...		....	9,982	1,125	248,733	259,790	154,961	400	214	308	3	1	....	....	24,000	40
Totals, ...	....	....	21,315	2,374	671,108	694,792	418,098	800	......	638	5	2	....	....	54,500	85
Tower Hill Connellsville Coke Co.																
Tower Hill No. 1, ...	Fayette, ...	....	4,868	1,081	287,272	293,221	195,019	320	294	372	2	2	....	....	21,575	48
Tower Hill No. 2, ...		....	7,476	828	319,753	328,057	198,247	394	295	359	....	1	....	....	41,376	42
Totals, ...	....	....	12,344	1,909	607,025	621,278	393,266	714	......	731	2	3	....	....	62,951	90

Connellsville Central Coke Co.																
Herbert,	Fayette,	....	10,890	1,210	*391,534	403,634	191,824	210	310	300	1	2	....	....	28,650	40
Low Phos No. 1,		....	3,144	626	148,240	152,010	159,029	250	310	173	....	....	....	....	17,725	18
Totals,		....	14,034	1,836	539,774	555,644	350,853	460	......	473	1	2	....	....	46,375	58
Taylor Coal and Coke Co.																
Searight,	Fayette,	....	4,700	1,500	473,672	479,872	293,408	378	301	336	....	1	....	....	40,000	43
Republic Iron and Steel Co.																
Republic,	Fayette,	3,612	6,133	1,193	451,674	462,612	300,698	400	309	531	....	4	....	....	37,435	39
Monongahela River Consolidated Coal and Coke Co.,																
Albany,	Fayette,	226,427	3,786	426	....	230,639	....	......	273	240	1	....	....	....	9,000	11
Chamouni,		150,263	4,481	43	....	154,787	....	......	284	170	....	....	....	....	10,000	13
Totals,		376,690	8,267	469	....	385,426	....	......	......	410	1	....	....	....	19,000	24
Brier Hill Coke Co.																
Brier Hill,	Fayette,	760	8,030	2,200	371,000	381,990	277,533	470	306	559	1	2	....	....	20,000	65
Orient Coke Co.																
Orient,	Fayette,	....	13,150	4,204	355,440	372,794	270,500	480	298	426	1	3	....	....	28,110	44
W. Harry Brown																
Alicia,	Fayette,	....	1,828	1,037	356,055	358,920	239,628	400	309	334	4	2	....	....	55,000	15
W. J. Rainey																
Allison Nos. 1 and 2,	Fayette,	....	10,599	414	197,372	208,385	128,512	200	309	186	4	3	....	1,000	32,400	64
La Belle Coke Co.																
La Belle,	Fayette,	....	3,816	2,202	181,621	187,639	112,447	200	310	197	1	....	....	....	21,150	12
Struthers Coal and Coke Co.																
Struthers,	Fayette,	....	2,013	276	165,075	167,364	132,081	200	312	193	5	2	....	....	....	16
Century Coke Co.																
Century,	Fayette,	....	168	984	146,463	147,615	97,634	205	274	148	2	2	....	....	15,100	13
Isabella Connellsville Coke Co.																
Isabel,	Fayette,	33	12,614	506	113,237	126,390	81,666	260	269	210	....	2	....	....	17,100	32
Union Connellsville Coke Co.																
Katharine,	Fayette,	....	694	464	110,090	111,248	85,555	140	308	121	1	....	....	....	11,000	16

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*96,420 tons made into coke at Low Phos No. 1.

TABLE 2.—Continued

Names of Operators and Mines	County	Number of tons of coal shipped to market	Number of tons used at mines for steam and heat	Number of tons sold to local trade and used by employes	Number of tons used in manufacture of coke	Total production of coal in tons	Total production of coke in tons	Number of coke ovens	Number of days worked	Number of employes	Number of fatal accidents	Number of non-fatal accidents	Explosives			Number of horses and mules
													Number of pounds of powder used	Number of pounds of dynamite used	Number of pounds of permissible explosives used	
Hustead-Semans Coal and Coke Co. Hustead, ...	Fayette, ...	14,153	5,760	1,690	88,203	109,806	52,925	100	299	156	1	....	....	....	15,000	19
Etna Connellsville Coke Co. Garwood, ...	Fayette, ...	....	2,850	284	87,624	90,758	63,891	119	285	113	....	1	....	....	17,050	12
Henderson Coal Co. Umpire, ...	Fayette, ...	73,201	....	260	....	73,461	....	......	365	56	....	....	....	....	11,500	2
Prospect Coal and Coke Co. Solon.	Fayette, ...	....	1,230	732	37,010	38,972	24,129	100	304	77	1	1	....	....	24,000	9
Brownsville Coke Co. Ganns, ...	Fayette, ...	....	....	....	32,367	32,367	21,568	50	207	48	2	1	....	....	4,000	6
Sunshine Coal and Coke Co. Eleanor, ...	Fayette, ...	....	216	72	26,000	26,288	17,327	132	218	54	....	....	....	....	4,000	6

Champion Connellsville Coke Co.															
Champion, ...	Fayette, ...	839	....	85	14,155	15,079	9,201	40	122	38	....	....	....	....	3,420	4
Luzerne Coal and Coke Co.															
Luzerne, ...	Fayette, ...	7,750	....	25	300	8,075	200	34	106	21	....	....	....	....	2,500	2
Grand totals, ...	....	1,254,345	156,125	30,023	5,385,233	6,825,726	3,596,103	6,232	......	6,857	34	32	....	1,000	649,682	756

TABLE 2—Part 2

Names of Operators	County	Number of Boilers					Locomotives				Number of steam engines of all classes	Total horse power	Number of pumps delivering water to surface	Capacity in gallons per minute	Quantity delivered to surface per minute—gallons	Number of electric dynamos	Number of air compressors
		Cylindrical	Horse power	Tubular	Horse power	Total horse power	Gasoline	Steam	Air	Electric							
H. C. Frick Coke Co.,	Fayette,	......	......	14	3,300	3,300	....	....	1	15	17	2,325	6	2,600	850	7	3
Thompson Connellsville Coke Co.,		......	......	16	2,400	2,400	....	....	10	....	13	1,825	1	800	100	4	5
Tower Hill Connellsville Coke Co.,		......	......	6	2,424	2,424	....	....	7	....	15	2,485	2	1,600	200	4	4
Connellsville Central Coke Co.,		......	......	12	2,400	2,400	....	....	....	....	12	1,200	3	730	375	3	3
Taylor Coal and Coke Co.,		......	......	9	1,275	1,275	....	....	....	2	6	1,920	2	787	400	2	2
Republic Iron and Steel Co.,		......	......	5	2,007	2,007	....	....	7	5	8	2,000	2	700	400	2	4
Monongahela River Consolidated Coal and Coke Co.,		......	......	9	795	795	....	....	....	2	11	735	6	1,390	955	2	......
Brier Hill Coke Co.,		......	......	5	1,515	1,515	....	3	4	....	10	1,300	2	850	190	2	3
Orient Coke Co.,		......	......	6	1,800	1,800	....	....	7	....	14	4,980	2	600	200	3	5
W. Harry Brown,		......	......	3	1,125	1,125	....	2	....	2	11	2,075	1	250	100	3	1
W. J. Rainey,		......	......	9	2,180	2,180	....	....	....	1	17	1,700	2	365	190	2	1
La Belle Coke Co.,		......	......	2	400	400	....	....	....	4	2	500	1	325	325	2	......
Struthers Coal and Coke Co.,		......	......	4	700	700	...	....	2	....	6	700	1	500	100	2	2
Century Coke Co.,		......	......	1	100	100	....	....	....	1	......	....	4	250	75	......	......
Isabella Connellsville Coke Co.,		......	......	4	1,668	1,668	....	....	....	1	9	1,660	9	2,100	1,000	2	2
Union Connellsville Coke Co.,		......	......	4	600	600	....	....	....	....	2	620	1	180	150	......	......
Hustead-Semans Coal and Coke Co.,		......	......	8	1,200	1,200	....	....	....	2	9	1,000	5	800	80	2	2
Etna Connellsville Coke Co.,		......	......	2	250	250	....	....	....	....	2	110	1	260	185	......	1
Henderson Coal Co.,		......	......	....	....	....	....	....	....	1	......	....	2	265	200	......	......
Prospect Coal and Coke Co.,		......	......	2	200	200	...	1	....	....	1	300	3	380	140	......	1

Sunshine Coal and Coke Co.,	Fayette, ...	......	......	1	100	100	....	1	....	....	2	75	....	....	....	......	......
Champion Connellsville Coke Co., ...		......	......	....	....	....	....	....	....	....	6	97	2	150	75	......	......
Luzerne Coal and Coke Co.,		......	......	....	....	....	....	....	....	....	......	....	1	100	100	......	......
Totals, ...	....	.....	......	122	26,439	26,439	....	7	38	36	173	27,607	59	15,982	6,340	42	39

TABLE 2—Part 2

Names of Operators	County	Number of Boilers					Locomotives				Number of steam engines of all classes	Total horse power	Number of pumps delivering water to surface	Capacity in gallons per minute	Quantity delivered to surface per minute—gallons	Number of electric dynamos	Number of air compressors
		Cylindrical	Horse power	Tubular	Horse power	Total horse power	Gasoline	Steam	Air	Electric							
H. C. Frick Coke Co., ...	Fayette, ...	......	......	14	3,800	3,800	....	....	1	15	17	2,325	6	2,600	850	7	3
Thompson Connellsville Coke Co., ...		......	......	16	2,400	2,400	....	....	10	....	13	1,825	1	800	100	4	5
Tower Hill Connellsville Coke Co., ...		......	......	6	2,424	2,424	....	....	7	....	15	2,485	2	1,600	200	4	4
Connellsville Central Coke Co., ...		......	......	12	2,400	2,400	....	....	....	....	12	1,200	3	730	375	3	3
Taylor Coal and Coke Co., ...		......	......	9	1,275	1,275	....	....	....	2	6	1,920	2	787	400	2	2
Republic Iron and Steel Co.,		......	......	5	3,007	2,007	....	....	7	5	8	2,000	2	700	400	2	4
Monongahela River Consolidated Coal and Coke Co., ..		......	......	9	795	795	....	....	....	2	11	735	6	1,390	955	2	......
Brier Hill Coke Co., ...		......	......	5	1,515	1,515	....	3	4	....	10	1,300	2	850	190	3	3
Orient Coke Co., ...		......	......	6	1,800	1,800	....	....	7	....	14	4,960	2	600	200	3	5
W. Harry Brown, ...		......	......	3	1,125	1,125	....	2	....	2	11	2,075	1	250	100	3	1
W. J. Rainey, ...		......	......	9	2,180	2,180	....	....	....	1	17	1,700	2	365	190	2	1
La Belle Coke Co., ...		......	......	2	400	400	....	....	....	4	2	500	1	325	325	2	......
Struthers Coal and Coke Co.,		......	......	4	700	700	...	....	2	....	6	700	1	500	100	2	2
Century Coke Co., ...		......	......	1	100	100	....	....	....	1	......	....	4	250	75	......	......
Isabella Connellsville Coke Co., ...		......	......	4	1,668	1,668	....	....	....	1	9	1,660	9	2,100	1,000	2	2
Union Connellsville Coke Co.,		......	......	4	600	600	....	....	....	....	2	620	1	180	150	......	......
Hustead-Semans Coal and Coke Co., ...		......	......	8	1,200	1,200	....	....	....	2	9	1,000	5	800	80	2	2
Etna Connellsville Coke Co.,		......	......	2	250	250	....	....	....	....	2	110	1	260	185	......	1
Henderson Coal Co., ...		......	......	....	....	....	....	....	....	1	......	....	2	265	200	......	......
Prospect Coal and Coke Co.,		......	......	2	200	200	...	1	....	....	1	300	3	380	140	......	1

Sunshine Coal and Coke Co.,	Fayette, ...	......	......	1	100	100	....	1	....	....	2	75	....	....	....	......	......
Champion Connellsville Coke Co., ...		......	......	....	....	....	....	....	....	....	6	97	2	150	75	......	......
Luzerne Coal and Coke Co.,		......	......	....	....	....	....	....	....	....	......	....	1	100	100	......	......
Totals.	....	.....	......	122	26,439	26,439	....	7	38	36	173	27,607	59	15,982	6,340	42	39

TABLE 3.—Number of Each Class of Employes Inside and Outside of Mines

Names of Operators	County	Inside											Outside								Grand total inside and outside
		Mine foremen	Assistant mine foremen	Fire bosses	Miners	Machine runners	Machine loaders	Machine scrapers	Drivers and runners	Doorboys and helpers	Company men	All other employes	Total inside	Superintendents	Foremen	Blacksmiths and carpenters	Engineers and firemen	Coke employes	Bookkeepers and clerks	All other employes	Total outside	
H. C. Frick Coke Co.,	Fayette,	3	5	4	86	25	211	25	42	5	91	127	624	3	5	19	22	35	6	87	177	801
Thompson Connellsville Coke Co.,		3	2	5	120	22	130	22	28	2	118	15	467	2	7	9	21	50	6	76	171	638
Tower Hill Connellsville Coke Co.,		2	4	10	123	20	101	20	40	3	124	....	447	2	5	12	12	180	6	67	284	731
Connellsville Central Coke Co.,		2	1	3	138	10	50	10	36	3	47	7	307	2	3	8	13	116	2	22	166	473
Taylor Coal and Coke Co.,		1	2	3	80	7	70	7	17	1	30	10	228	1	4	6	10	25	2	60	108	336
Republic Iron and Steel Co.,		1	3	4	96	17	91	17	16	1	46	63	355	1	....	6	10	115	3	41	176	531
Monongahela River Consolidated Coal and Coke Co.,		2	3	3	242	2	39	2	21	....	43	1	358	1	1	4	9	......	2	35	52	410
Brier Hill Coke Co.,		1	3	4	225	10	50	10	28	2	30	25	388	2	3	5	7	130	4	20	171	559
Orient Coke Co.,		1	2	3	72	10	84	10	17	3	....	70	272	1	2	5	9	103	2	32	154	426
W. Harry Brown,		1	2	2	......	13	135	13	15	2	35	2	220	1	3	3	7	60	5	35	114	334
W. J. Rainey,		1	1	3	......	10	47	10	11	....	....	40	123	1	1	7	6	19	10	19	63	186
La Belle Coke Co.,		1	....	1	20	6	56	6	9	....	11	10	120	1	2	3	5	46	1	19	77	197
Struthers Coal and Coke Co.,		1	1	1	100	......	......	....	10	....	40	....	153	1	1	2	7	13	1	15	40	193
Century Coke Co.,		1	1	1	34	3	31	3	6	....	5	10	95	1	1	3	1	32	1	14	53	148
Isabella Connellsville Coke Co.,		1	1	2	......	10	70	10	12	....	30	10	146	1	2	4	8	40	2	7	64	210
Union Connellsville Coke Co.,		1	....	1	50	2	15	2	7	....	6	7	91	1	1	2	3	15	1	7	30	121
Hustead-Semans Coal and Coke Co.,		1	....	1	......	4	60	4	8	....	8	9	95	1	1	4	10	33	4	8	61	156
Etna Connellsville Coke Co.,		1	....	1	5	6	32	6	7	....	10	....	68	1	3	2	3	33	1	2	45	113
Henderson Coal Co.,		1	....	1	10	2	20	2	4	....	8	2	50	1	....	1	....	......	....	4	6	56
Prospect Coal and Coke Co.,		1	....	....	35	......	......	....	4	....	....	6	46	1	1	1	3	20	1	4	31	77

Brownsville Coke Co., ...	Fayette,	1	....	....	22	......	......	....	4	....	4	...	31	....	1	1	....	12	....	3	17	48
Sunshine Coal and Coke Co.,		1	....	....	19	......	......	....	3	....	3	....	26	1	....	1	1	20	1	4	23	54
Champion Connellsville Coke Co., ...		1	....	....	18	......	......	....	2	....	3	....	24	1	1	1	1	9	....	1	14	33
Luzerne Coal and Coke Co.,		1	....	....	......	1	12	1	1	....	2	....	18	1	....	1	....	......	....	1	3	21
Totals, ...	....	31	31	53	1,495	180	1,304	180	348	22	694	414	4,752	29	48	110	168	1,106	61	583	2,105	6,857

TABLE 1.—Operators, Location of Mines, Railroads, etc.

Names of Operators and Mines	County	Name of General Superintendent	Post Office	Name of Superintendent	Post Office	Railroad to Mine
H. C. Frick Coke Co.						
Bridgeport,	Fayette,	W. H. Clingerman,	Scottdale,	W. C. Hood,	Brownsville,	Monongahela
Filbert Nos. 1 and 2,				Paul Jones,	New Salem,	
Dearth No. 1,				Clarence Patterson,	Uniontown, R. F. D No. 4.	
Dearth No. 2,†						
Crowthers,†						
Sarah,†						
Thompson Connellsville Coke Co.						
Thompson Nos. 1 and 2,	Fayette,	Andrew A. Thompson,	New Salem,	Andrew A. Thompson,	New Salem,	Monongahela
Tower Hill Connellsville Coke Co.						
Tower Hill No. 1,	Fayette,	J. R. Thompson,	Republic,	J. R. Thompson,	Republic,	Monongahela
Tower Hill No. 2,				J. T. Harshman,		
Connellsville Central Coke Co.						
Herbert,	Fayette,	C. E. Bortz,	New Salem,	C. E. Bortz,	New Salem,	Monongahela
Low Phos No. 1,						
Low Phos No. 2,*						
Taylor Coal and Coke Co.						
Searight,	Fayette,	D. B. Stauft,	Uniontown,	J. J. McIntyre,	Uniontown, R. F. D. No. 4.	Monongahela
Republic Iron and Steel Co.						
Republic,	Fayette,	George W. Gehres,	Republic,	H. P. Zeller,	Republic,	Monongahela
Monongahela River Consolidated Coal and Coke Co.						
Albany,	Fayette,	George W. Schluederberg.	Pittsburgh,	E. S. DeArmit,	South Brownsville,	P. and L. E.
Chamouni,						
Brier Hill Coke Co.						
Brier Hill,	Fayette,	Thomas McCaffrey,	Brier Hill,	R. F. McKay,	Brier Hill,	Monongahela
Orient Coke Co.						
Orient,	Fayette,	R. M. Fry,	Uniontown,	Charles Oppermann,	Orient,	Monongahela

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†Idle.
*Abandoned.

W. Harry Brown Alicia,	Fayette,	W. C. Reynolds,	Alicia,	W. C. Reynolds,	Alicia,	Monongahela
W. J. Rainey Allison Nos. 1 and 2,	Fayette,	L. L. Willard,	Uniontown,	Ben Holliday,	Allison,	Monengahela
La Belle Coke Co. La Belle,	Fayette,	R. W. McCasland,	Steubenville, Ohio,	Alexander Peterson,	La Belle,	Monengahela
Struthers Coal and Coke Co. Struthers,	Fayette,	W. C. Runyon,	New York, N. Y.,	John Shults,	Fairbank,	Monongahela
Century Coke Co. Century,	Fayette,	C. E. Lenhart,	New Salem,	D. C. Sheets,	Brownsville,	Monongahela
Isabella Connellsville Coke Co. Isabel,	Fayette,	J. D. O'Neil,	Pittsburgh,	W. J. Kearnes,	Brownsville,	Monongahela
Union Connellsville Coke Co. Katharine,	Fayette,	William Allison,	Uniontown,	Michael McPartland,	Brownsville, R. F. D. No. 20.	Monongahela
Hustead-Semans Coal and Coke Co. Hustead,	Fayette,	William Goodfellow,	East Millsboro,	William Goodfellow,	East Millsboro,	Monongahela
Etna Connellsville Coke Co. Garwood,	Fayette,	A. R. Miller,	Connellsville,	C. L. Patterson,	Brownsville,	Monongahela
Henderson Coal Co. Umpire,	Fayette,	Arthur McCune,	Charleroi,	C. C. McVicker,	Brownsville,	Monongahela
Prospect Coal and Coke Co. Solon,	Fayette,	W. A. Stone,	Uniontown,	J. T. Dawson,	Uniontown, R. F. D. No. 4.	Monongahela
Brownsville Coke Co. Ganns,	Fayette,	J. W. Abraham,	Uniontown,	S. J. Stone,	Brownsville,	Monongahela
Sunshine Coal and Coke Co. Eleanor,	Fayette,	J. B. Topham,	Uniontown,	J. B. Topham,	Uniontown,	Monongahela
Champion Connellsville Coke Co. Champion,	Fayette,	W. F. Pickard,	Brownsville,	A. B. Nedrow,	Brownsville,	Monongahela
Luzerne Coal and Coke Co. Luzerne,‡	Fayette,	W. F. Affelder,	Pittsburgh,	M. K. Goodridge,	East Millsboro,	Monongahela
Peoples Coal Co. Pike,†	Fayette,	G. H. Thomas,	Pittsburgh,	G. H. Thomas,	Pittsburgh,	Monongahela, P. V. and C. and P. and L. E.

‡New mine. †Idle.

TABLE 2.—Number of tons of coal mined and tons of coke produced, number of days worked, number of persons employed, number killed and injured, quantity of powder, dynamite and permissible explosives used, etc.

Names of Operators and Mines	County	Number of tons of coal shipped to market	Number of tons used at mines for steam and heat	Number of tons sold to local trade and used by employes	Number of tons used in manufacture of coke	Total production of coal in tons	Total production of coke in tons	Number of coke ovens	Number of days worked	Number of employes	Number of fatal accidents	Number of non-fatal accidents	Explosives			Number of horses and mules
													Number of pounds of powder used	Number of pounds of dynamite used	Number of pounds of permissible explosives used	
H. C. Frick Coke Co.																
Bridgeport, ...	Fayette, ...	321,197	9,587	698	82,051	413,528	51,282	100	285	269	....	....	....	....	35,862	....
Filbert Nos. 1 and 2,....		455,471	15,895	1,269	....	472,635	....	......	296	337	2	....	....	....	48,229	52
Dearth No. 1, ...		639	882	3,345	277,922	282,788	173,701	250	289	195	....	1	....	....	24,000	28
Totals, ...	....	777,307	26,364	5,307	359,978	1,168,951	224,983	350	......	801	2	1	....	....	108,091	80
Thompson Connellsville Coke Co.																
Thompson No. 1, ...	Fayette, ...	....	11,383	1,249	422,370	435,002	263,137	400	281	330	2	1	....	....	30,500	45
Thompson No. 2, ...		....	9,932	1,125	248,738	259,790	154,961	400	214	308	3	1	....	....	24,000	40
Totals, ...	....	....	21,315	2,374	671,108	694,792	418,098	800	......	638	5	2	....	....	54,500	85
Tower Hill Connellsville Coke Co.																
Tower Hill No. 1, ...	Fayette, ...	....	4,868	1,081	287,272	293,221	195,019	320	294	372	2	2	....	....	21,575	48
Tower Hill No. 2, ...		....	7,476	828	319,753	328,057	198,247	394	295	359	....	1	....	....	41,376	42
Totals, ...	....	....	12,344	1,909	607,025	621,278	393,266	714	......	731	2	3	....	....	62,951	90

Connellsville Central Coke Co.															
Herbert,	Fayette,	....	10,890	1,210	*391,584	408,634	191,824	210	310	300	1	2	....	....	28,650	40
Low Phos No. 1,		....	3,144	626	148,240	152,010	159,029	250	310	173	....	....	....	....	17,725	18
Totals,	....	....	14,034	1,836	539,774	555,644	350,853	460	......	473	1	2	....	....	46,375	58
Taylor Coal and Coke Co.															
Searight,	Fayette,	....	4,700	1,500	473,672	479,872	293,408	378	301	336	....	1	....	....	40,000	43
Republic Iron and Steel Co.															
Republic,	Fayette,	3,612	6,133	1,193	451,674	462,612	300,698	400	309	531	....	4	....	....	37,435	39
Monongahela River Consolidated Coal and Coke Co.,															
Albany,	Fayette,	226,427	3,786	426	....	230,639	....	......	273	240	1	....	....	....	9,000	11
Chamouni,		150,263	4,481	43	....	154,787	....	......	284	170	....	....	....	....	10,000	13
Totals,	....	376,690	8,267	469	....	385,426	....	......	......	410	1	....	....	....	19,000	24
Brier Hill Coke Co.															
Brier Hill,	Fayette,	760	8,080	2,200	371,000	381,990	277,533	470	306	559	1	2	....	....	20,000	65
Orient Coke Co.															
Orient,	Fayette,	....	13,150	4,204	355,440	372,794	270,500	480	298	426	1	3	....	....	28,110	44
W. Harry Brown															
Alicia,	Fayette,	....	1,828	1,037	356,055	358,920	239,628	400	309	334	4	2	....	....	55,000	15
W. J. Rainey															
Allison Nos. 1 and 2,	Fayette,	....	10,599	414	197,372	208,385	128,512	200	309	186	4	3	....	1,000	32,400	64
La Belle Coke Co.															
La Belle,	Fayette,	....	3,816	2,202	181,621	187,639	112,447	200	310	197	1	....	....	....	21,150	12
Struthers Coal and Coke Co.															
Struthers,	Fayette,	....	2,013	276	165,075	167,364	132,081	200	312	193	5	2	....	....	....	16
Century Coke Co.															
Century,	Fayette,	....	168	984	146,463	147,615	97,634	205	274	148	2	2	....	....	15,100	13
Isabella Connellsville Coke Co.															
Isabel,	Fayette,	33	12,614	506	113,237	126,390	81,666	260	269	210	....	2	....	....	17,100	32
Union Connellsville Coke Co.															
Katharine,	Fayette,	....	694	464	110,090	111,248	85,555	140	308	121	1	....	....	....	11,000	16

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*96,420 tons made into coke at Low Phos No. 1.

TABLE 2.—Continued

Names of Operators and Mines	County	Number of tons of coal shipped to market	Number of tons used at mines for steam and heat	Number of tons sold to local trade and used by employes	Number of tons used in manufacture of coke	Total production of coal in tons	Total production of coke in tons	Number of coke ovens	Number of days worked	Number of employes	Number of fatal accidents	Number of non-fatal accidents	Explosives			Number of horses and mules
													Number of pounds of powder used	Number of pounds of dynamite used	Number of pounds of permissible explosives used	
Hustead-Semans Coal and Coke Co. Hustead, ...	Fayette, ...	14,153	5,760	1,690	88,203	109,806	52,925	100	299	156	1	....	....	....	15,000	19
Etna Connellsville Coke Co. Garwood, ...	Fayette, ...	....	2,850	284	87,624	90,758	63,891	119	285	113	....	1	....	....	17,050	12
Henderson Coal Co. Umpire, ...	Fayette, ...	73,201	....	260	....	73,461	....	......	365	56	....	....	....	....	11,500	2
Prospect Coal and Coke Co. Solon, ...	Fayette, ...	....	1,230	732	37,010	38,972	24,129	100	304	77	1	1	....	....	24,000	9
Brownsville Coke Co. Ganns, ...	Fayette, ...	....	....	....	32,367	32,367	21,568	50	207	48	2	1	....	....	4,000	6
Sunshine Coal and Coke Co. Eleanor, ...	Fayette, ...	....	216	72	26,000	26,288	17,327	132	218	54	....	....	....	....	4,000	6

Champion Connellsville Coke Co.																
Champion,	Fayette,	839	....	85	14,155	15,079	9,201	40	122	38	....	....	....	....	3,420	4
Luzerne Coal and Coke Co.																
Luzerne,	Fayette,	7,750	....	25	300	8,075	200	34	106	21	....	....	....	....	2,500	3
Grand totals,	....	1,254,345	156,125	30,023	5,885,233	6,825,726	3,596,103	6,232	......	6,857	34	32	....	1,000	649,682	756

TABLE 2—Part 2

Names of Operators	County	Number of Boilers					Locomotives				Number of steam engines of all classes	Total horse power	Number of pumps delivering water to surface	Capacity in gallons per minute	Quantity delivered to surface per minute—gallons	Number of electric dynamos	Number of air compressors
		Cylindrical	Horse power	Tubular	Horse power	Total horse power	Gasoline	Steam	Air	Electric							
H. C. Frick Coke Co., ...	Fayette, ...	......	......	14	3,300	3,300	....	....	1	15	17	2,325	6	2,600	850	7	3
Thompson Connellsville Coke Co., ...		......	......	16	2,400	2,400	....	....	10	....	13	1,825	1	800	100	4	5
Tower Hill Connellsville Coke Co., ...		......	......	6	2,424	2,424	....	....	7	....	15	2,485	2	1,600	200	4	4
Connellsville Central Coke Co., ...		......	......	12	2,400	2,400	....	....	....	....	12	1,200	3	730	375	3	3
Taylor Coal and Coke Co., ...		......	......	9	1,275	1,275	....	....	....	2	6	1,920	2	787	400	2	2
Republic Iron and Steel Co.,		......	......	5	2,007	2,007	....	....	7	5	8	2,000	2	700	400	2	4
Monongahela River Consolidated Coal and Coke Co., ...		......	......	9	795	795	....	....	....	2	11	785	6	1,890	955	2	......
Brier Hill Coke Co., ...		......	......	5	1,515	1,515	....	3	4	....	10	1,300	2	850	190	2	3
Orient Coke Co., ...		......	......	6	1,800	1,800	....	....	7	....	14	4,980	2	600	200	3	5
W. Harry Brown, ...		......	......	3	1,125	1,125	....	2	....	2	11	2,075	1	250	100	3	1
W. J. Rainey, ...		......	......	9	2,180	2,180	....	....	....	1	17	1,700	2	365	190	2	1
La Belle Coke Co., ...		......	......	2	400	400	....	....	....	4	2	500	1	325	325	2	......
Struthers Coal and Coke Co.,		......	......	4	700	700	....	....	2	....	6	700	1	500	100	2	2
Century Coke Co., ...		......	......	1	100	100	....	....	....	1	......	....	4	250	75	......	......
Isabella Connellsville Coke Co., ...		......	......	4	1,668	1,668	....	....	....	1	9	1,660	9	2,100	1,000	2	2
Union Connellsville Coke Co.,		......	......	4	600	600	....	....	....	....	2	620	1	180	150	......	......
Hustead-Semans Coal and Coke Co., ...		......	......	8	1,200	1,200	....	....	....	2	9	1,000	5	800	80	2	2
Etna Connellsville Coke Co.,		......	......	2	250	250	....	....	....	....	2	110	1	260	185	......	1
Henderson Coal Co., ...		......	......	....	....	....	....	....	....	1	......	....	2	265	200	......	......
Prospect Coal and Coke Co.,		......	......	2	200	200	...	1	....	....	1	300	3	380	140	......	1

Sunshine Coal and Coke Co.,	Fayette, ...	......	......	1	100	100	....	1	....	....	2	75	....	....	....	......	......
Champion Connellsville Coke Co.,		......	......	....	....	....	....	....	....	....	6	97	2	150	75	......	......
Luzerne Coal and Coke Co.,		......	......	....	....	....	....	....	....	....	......	....	1	100	100	......	......
Totals,		.....	......	122	26,439	26,439	....	7	38	36	173	27,607	59	15,982	6,340	42	39

TABLE 3.—Number of Each Class of Employes Inside and Outside of Mines

Names of Operators	County	Inside												Outside								Grand total inside and outside
		Mine foremen	Assistant mine foremen	Fire bosses	Miners	Machine runners	Machine loaders	Machine scrapers	Drivers and runners	Doorboys and helpers	Company men	All other employes	Total inside	Superintendents	Foremen	Blacksmiths and carpenters	Engineers and firemen	Coke employes	Bookkeepers and clerks	All other employes	Total outside	
H. C. Frick Coke Co., ...	Fayette,	3	5	4	86	25	211	25	42	5	91	127	624	3	5	19	22	35	6	87	177	801
Thompson Connellsville Coke Co., ...		3	2	5	120	22	130	22	28	2	118	15	467	2	7	9	21	50	6	76	171	638
Tower Hill Connellsville Coke Co., ...		2	4	10	123	20	101	20	40	3	124	....	447	2	5	12	12	180	6	67	284	731
Connellsville Central Coke Co., ...		2	1	3	138	10	50	10	36	3	47	7	307	2	3	8	13	116	2	22	166	473
Taylor Coal and Coke Co., ..		1	2	3	80	7	70	7	17	1	30	10	228	1	4	6	10	25	2	60	108	336
Republic Iron and Steel Co.,		1	3	4	96	17	91	17	16	1	46	63	355	1	....	6	10	115	3	41	176	531
Monongahela River Consolidated Coal and Coke Co.,		2	3	3	242	2	39	2	21	....	43	1	358	1	1	4	9	......	2	35	52	410
Brier Hill Coke Co., ...		1	3	4	225	10	50	10	28	2	30	25	388	2	3	5	7	130	4	20	171	559
Orient Coke Co., ...		1	2	3	72	10	84	10	17	3	....	70	272	1	2	5	9	106	2	28	154	426
W. Harry Brown, ...		1	2	2	......	13	135	13	15	2	35	2	220	1	3	3	7	60	5	35	114	334
W. J. Rainey, ...		1	1	3	......	10	47	10	11	....	....	40	123	1	1	7	6	19	10	19	63	186
La Belle Coke Co., ...		1	....	1	20	6	56	6	9	....	11	10	120	1	2	3	5	46	1	19	77	197
Struthers Coal and Coke Co.,		1	1	1	100	......	......	....	10	....	40	....	153	1	1	2	7	13	1	15	40	193
Century Coke Co., ...		1	1	1	34	3	31	3	6	....	5	10	95	1	1	3	1	32	1	14	53	148
Isabella Connellsville Coke Co., ...		1	1	2	......	10	70	10	12	....	30	10	146	1	2	4	8	40	2	7	64	210
Union Connellsville Coke Co.,		1	....	1	50	2	15	2	7	....	6	7	91	1	1	2	3	15	1	7	30	121
Hustead-Semans Coal and Coke Co., ...		1	....	1	......	4	60	4	8	....	8	9	95	1	1	4	10	33	4	8	61	156
Etna Connellsville Coke Co.,		1	....	1	5	6	32	6	7	....	10	....	68	1	3	2	3	33	1	2	45	113
Henderson Coal Co., ...		1	....	1	10	2	20	2	4	....	8	2	50	1	....	1	....	......	....	4	6	56
Prospect Coal and Coke Co.,		1	....	....	35	......	......	....	4	....	....	6	46	1	1	1	3	20	1	4	31	77

Brownsville Coke Co., ...	Fayette,	1	....	....	22	......	......	....	4	....	4	...	31	....	1	1	....	12	....	3	17	48
Sunshine Coal and Coke Co.,		1	....	....	19	......	......	....	3	....	3	....	26	1	....	1	1	20	1	4	28	54
Champion Connellsville Coke Co., ...		1	....	....	18	......	......	....	2	....	3	....	24	1	1	1	1	9	....	1	14	33
Luzerne Coal and Coke Co.,		1	....	....	......	1	12	1	1	....	2	....	18	1	....	1	....	......	....	1	8	21
Totals, ...	....	31	31	53	1,495	180	1,304	180	348	22	694	414	4,752	29	48	110	168	1,106	61	583	2,105	6,857

TABLE 3.—Part 2

Names of Operators	County	Average Number of Days Worked												
		January	February	March	April	May	June	July	August	September	October	November	December	Total
H. C. Frick Coke Co.,	Fayette,	26	24	23	24	27	25	26	26	25	24	22	18	290
Thompson Connellsville Coke Co.,		27	24	25	21	27	25	22	24	18	11	12	12	248
Tower Hill Connellsville Coke Co.,		27	24	26	25	27	25	24	24	25	24	22	21	294
Connellsville Central Coke Co.,		27	24	26	26	27	25	25	26	26	27	25	26	310
Taylor Coal and Coke Co.,		27	24	26	25	27	25	26	26	26	23	21	25	301
Republic Iron and Steel Co.,		27	24	26	24	27	25	26	26	26	27	25	26	309
Monongahela River Consolidated Coal and Coke Co.,		21	22	22	23	21	25	24	26	25	26	20	24	289
Brier Hill Coke Co.,		26	23	26	26	27	23	26	26	25	27	25	26	306
Orient Coke Co.,		27	24	25	22	26	25	21	26	26	27	24	25	298
W. Harry Brown,		27	24	26	26	27	25	26	27	26	27	23	25	309
W. J. Rainey,		27	24	26	26	27	25	26	26	25	27	25	25	309
La Belle Coke Co.,		27	24	26	26	27	24	26	26	26	27	25	26	310
Struthers Coal and Coke Co.,		27	24	26	26	27	25	27	26	26	27	25	26	312
Century Coke Co.,		27	24	25	22	26	25	23	22	20	13	24	23	274
Isabella Connellsville Coke Co.,		27	23	26	26	27	25	26	24	12	27	19	7	269
Union Connellsville Coke Co.,		27	23	26	26	26	25	27	25	25	27	25	26	308
Hustead-Semans Coal and Coke Co.,		25	24	25	26	25	25	26	26	25	25	23	24	299
Etna Connellsville Coke Co.,		27	22	23	20	26	24	26	24	25	17	25	26	285
Henderson Coal Co.,		31	28	31	30	31	30	31	31	30	31	30	31	365
Prospect Coal and Coke Co.,		24	24	24	26	27	25	24	26	26	27	25	26	304
Brownsville Coke Co.,		26	23	23	16	17	18	12	16	13	12	14	17	207
Sunshine Coal and Coke Co.,		27	24	25	25	27	25	25	22	18	......	......	......	218
Champion Connellsville Coke Co.,		27	25	24	23	23	......	......	......	......	......	......	......	122
Luzerne Coal and Coke Co.,		......	......	......	......	......	......	......	8	30	31	24	18	106

TABLE 4.—Fatal Accidents Inside and Outside of Mines

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Number of widows	Number of orphans	Name of Mine	County	Nature and Cause of Accident in Brief
Jan. 3	George Sholitis, ...	American, ..	Coke employe	16	S.	....	....	Tower Hill No. 1,	Fayette, ...	Fatally injured by larry on top of coke ovens. Outside.
10	Albert Questa, ...	Polish, ...	Miner, ...	25	S.	....	....	Struthers, ...		Fatally injured by fall of slate at face of working place while at pillar work.
20	John Herjohn, ...	Roumanian,	Miner, ...	33	M.	1	1	Struthers, ...		Instantly killed by fall of slate at face of working place while at pillar work.
Feb. 15	John Hufko, ...	Slavonian, ..	Coke employe	39	M.	1	2	Alicia, ...		Fatally injured by coke drawing machine. Outside.
22	Steve Tilinko, ...	Hungarian, .	Miner, ...	16	S.	....	....	Albany, ...		Fatally injured by fall of slate at face of working place.
March 4	Joseph Becoskey, ...	Slavonian, ..	Miner, ...	32	M.	1	1	Century, ...		Instantly killed by fall of roof at face of working place while at pillar work.
April 4	George Onesko, ...	Austrian, ..	Miner, ...	38	M.	1	3	Ganns, ...		Fatally injured by fall of slate at face of working place while at pillar work.
May 5	John Breckenridge, ..	American, ..	Fireman, ...	24	S.	....	....	Alicia, ...		Fatally injured by being squeezed between the bumpers of railway cars on side track of coke yard. Outside.
29	Mike Gerga, ...	Roumanian,	Miner, ...	48	M.	1	3	Struthers, ...		Fatally injured by fall of roof at face of room in No. 8 butt entry.
31	Anton Peritsu, ...	Croatian, ..	Laborer, ...	46	M.	1	4	Brier Hill, ...		Instantly killed by fall of roof in roadway of No. 13 room while timbering the place.
June 4	Orville Alton, ...	American, ..	Coke employe	27	S.	....	....	Allison No. 1, ..		Fatally injured by coke drawing machine in coke yard. Outside.
10	George Demancheck, ..	Slavonian, ..	Snapper, ...	17	S.	....	....	Thompson No. 1,		Instantly killed by cars. He fell off an air locomotive while traveling along the main entry.
16	Joseph Franks, ...	American, ..	Laborer, ...	23	S.	....	....	Thompson No. 2,		Instantly killed. Run over by coke drawing machine while asleep in the coke yard. Outside.
21	Albert Matcheos, ...	Polish, ...	Laborer, ...	48	M.	1	....	Filbert No. 1, ..		Fatally injured by fall of roof while cleaning up a fall of slate near face of No. 2 butt entry.
July 16	Harry Seeman, ...	American, ..	Electrician,	17	S.	....	....	Thompson No. 2,		Fatally burned by explosion of gasoline torch in workshop. Outside.

TABLE 4—Continued

Date of accident		Name of Person	Nationality	Occupation	Age	Married or single	Number of widows	Number of orphans	Name of Mine	County	Nature and Cause of Accident in Brief
Aug.	9	Andy Orris, ...	Slavonian,..	Miner, ...	29	M.	1	3	La Belle, ...	Fayette, ...	Fatally injured by fall of slate at face of room.
	13	Max Milic, ...	Russian, ...	Miner, ...	34	M.	1	4	Alicia, ...		Instantly killed by empty trip on main haulage way.
	15	Mike Carona, ...	Italian, ...	Loader, ...	23	S.	....	....	Allison No. 1, ..		Instantly killed by fall of roof at face of entry.
Sept.	12	Frank Vinchook, ...	Russian, ...	Miner, ...	40	M.	1	2	Alicia, ...		Instantly killed by fall of slate at face of room.
	15	John Toat, ...	Hungarian, .	Miner, ...	28	M.	1	3	Solon, ...		Instantly killed by fall of roof at face of working place while at pillar work.
	18	Carl Horwauchak, ...	Slavonian,..	Coke employe	25	M.	1	2	Struthers, ...		Instantly killed by contact with trolley wire on coke ovens. Outside.
Oct.	3	Krank Kuba, ...	Bohemian,..	Timberman, .	37	M.	1	5	Thompson No. 2,		Instantly killed by fall of roof while timbering roadway of No. 23 room.
	4	Howard Nicholson, ..	American, ..	Snapper, ...	20	M.	1	....	Hustead, ...		Instantly killed by electric locomotive on main entry.
	17	Charles Parish, ...	Slavonian,..	Miner, ...	27	S.	....	....	Katharine, ...		Instantly killed by fall of slate at face of room.
	19	Edward Short, ...	Italian, ...	Laborer, ...	29	M.	1	1	Allison No. 1, ..		Instantly killed by fall of roof near shaft bottom while helping to erect steel "I" beams.
	28	Joseph Yalicia, ...	Horwat, ...	Miner, ...	30	S.	....	....	Orient, ...		Fatally injured by fall of roof at face of working place while at pillar work.
		Andy Premo, ...	Slavonian, ..	Miner, ...	29	M.	1	1	Herbert, ...		Instantly killed by fall of coal at face of entry.
Nov.	6	Sam Balseck, ...	Horwat, ...	Driver, ...	22	S.	....	....	Struthers, ...		Fatally injured when his trip of empty cars jumped off the track at a switch on the entry.
		Charles Conlosh, ...	Hungarian, .	Miner, ...	40	M.	1	5	Ganns, ...		Instantly killed by fall of coal at face of working place while at pillar work.
	7	Edward Shea, ...	American, ..	Motorman, ..	48	M.	1	6	Filbert No. 1,..		Instantly killed by locomotive on main haulage way. The cab of the locomotive struck a cross bar.
	19	Paul Swinglish, ...	Slavonian,..	Snapper, ...	18	S.	....	....	Tower Hill No. 1,		Instantly killed. Struck by air locomotive as he was running to turn a switch near shaft bottom.

Nov.	22	Frank Russian, ...	Slavonian, ..	Driver, ...	35	M.	1	7	Allison No. 2,..	Fayette, ...	Instantly killed while riding between cars which squeezed him in going around a curve on the entry.
	29	James Dillon, ...	Austrian, ..	Snapper, ...	25	S.	....	....	Thompson No. 1,		Instantly killed by loaded cars when he fell off the front of his trip on the main haulage way.
Dec.	15	Valiant Coller, ...	Horwat, ...	Miner, ...	22	M.	1	....	Century, ...		Instantly killed by fall of roof at face of working place while at pillar work.

TABLE 5.—Non-Fatal Accidents Inside and Outside of Mines

Date of accident		Name of Person	Nationality	Occupation	Age	Married or single	Name of Mine	County	Nature and Cause of Accident in Brief
Jan.	15	Pasqual Pasquetto,	Italian,	Miner,	26	S.	Brier Hill,	Fayette,	Body bruised by fall of slate at face of room.
	16	John Pop,	Roumanian,	Miner,	35	M.	Struthers,		Leg broken by fall of slate at face of room.
Feb.	18	Charles Churrabour,	Slavonian,	Driver,	21	M.	Century,		Spine injured. He was squeezed between his trip and a trap door frame on the entry.
		Richard Tomasek,	American,	Scraper,	22	S.	Dearth No. 1,		Leg bruised by cutter chain of mining machine at face of room.
March	1	John Barlow,	American,	Driver,	24	S.	Herbert,		Arm broken by being caught between car and post when hauling out of a room.
	11	Lazer Winerwith,	Horwat,	Miner,	26	M.	Century,		Ankle bone broken by fall of coal at face of room.
	14	George Swesta,	Slavonian,	Laborer,	25	M.	Isabel,		Leg broken by being caught between cars and side of entry.
April	11	Andy Stepka,	Slavonian,	Miner,	39	M.	Orient,		Ankle bone broken by air locomotive on main haulage way.
	16	Alex. Waunon,	Slavonian,	Laborer,	21	S.	Allison No. 1,		Spine injured by fall of slate that he was taking down on entry.
	24	John Sporty,	Austrian,	Miner,	23	S.	Isabel,		Leg broken by fall of slate at face of room.
May	5	Martin Senka,	Slavonian,	Coke employe,	37	M.	Ganns,		Shoulder dislocated by falling off railway cars in coke yard. Outside.
	12	John Conolosh,	Hungarian,	Driver,	19	S.	Solon,		Finger amputated while coupling cars on main entry siding.
	13	Dominic Delia,	Italian,	Driver,	32	S.	Allison No. 1,		Shoulder blade broken by being squeezed between trip and side of No. 8 right entry.
June	2	Tony Metz,	Italian,	Loader,	47	M.	Allison No. 1,		Leg broken by empty car at entrance to room.
	7	Tony Blaho,	Slavonian,	Laborer,	26	M.	Brier Hill,		Shoulder blade broken by force from broken connection of compressed air pipe on main entry.
	24	George Slusarik,	Polish,	Driver,	26	M.	Orient,		Collar bone broken by being squeezed between empty cars and side of entry.

July	23	John Coburn,	Russian,	Miner,	33	M.	Tower Hill No. 2,	Fayette,	Body bruised by fall of roof at face of room.
	30	Joseph Matsako,	Austrian,	Driver,	34	M.	Republic,		Body bruised by being squeezed between cars and side of entry.
Aug.	16	Lucus Farel,	Italian,	Laborer,	26	S.	Struthers,		Leg crushed by fall of slate at face of room.
		John Batty,	Slavonian,	Driver,	27	M.	Herbert,		Jaw bone broken. His head struck a post while hauling out of a room.
	17	Thomas Connely,	American,	Fireman,	30	S.	Orient,		Leg bruised by runaway car on boiler track. Outside.
	23	George Nimish,	Slavonian,	Laborer,	36	M.	Alicia,		Leg broken by fall of roof on main entry.
		Edward Wilkins,	English,	Fire boss,	42	M.	Alicia,		Leg bruised by fall of roof on main entry.
	29	George Byers,	American,	Miner,	22	M.	Garwood,		Foot crushed by fall of slate at face of room.
Sept.	4	John Sandegas,	Austrian,	Miner,	40	M.	Tower Hill No. 1,		Leg broken by fall of roof at face of room.
Oct.	3	John Coleman,	German,	Timberman,	43	M.	Thompson No. 2,		Leg broken by fall of roof on roadway of No. 23 room.
	24	John Pastor,	Italian,	Miner,	30	M.	Republic,		Back sprained by fall of slate at face of room.
Nov.	3	Peter Zarlass,	Polish,	Loader,	45	M.	Republic,		Both legs broken by fall of slate at face of room.
	20	August Bizul,	Slavonian,	Driver,	32	M.	Tower Hill No. 1,		Calf of leg crushed by being caught under wheels of trip on main entry.
	29	Thomas Dubone,	Italian,	Laborer,	23	M.	Thompson No. 1,		Leg broken by a board falling on it while painting steam pipes in the shaft.
Dec.	11	Sgnotz Sokorotz,	Horwat,	Miner,	35	M.	Searight,		Collar bone broken by fall of slate at face of room.
	28	Joe Streete,	Italian,	Laborer,	25	M.	Republic,		Leg broken by larry that jumped the track near tipple. Outside.

CONDITION OF MINES

H. C. FRICK COKE COMPANY

Bridgeport.—Ventilation, drainage and general condition, very good.

Filbert Nos. 1 and 2.—Ventilation, drainage and general condition, very good.

Dearth No. 1.—Ventilation, drainage and general condition, very good.

THOMPSON CONNELLSVILLE COKE COMPANY

Thompson No. 1.—Ventilation, drainage and general condition, very good.

Thompson No. 2.—Ventilation, drainage and general condition, very good.

TOWER HILL CONNELLSVILLE COKE COMPANY

Tower Hill No. 1.—Ventilation, drainage and general condition, very good. Slate was allowed to accumulate on the sides of South Flat entry, but it has been cleaned up and the entry put in good condition.

Tower Hill No. 2.—Ventilation, drainage and general condition, very good.

CONNELLSVILLE CENTRAL COKE COMPANY

Herbert.—Ventilation, drainage and general condition, very good.

Low Phos No. 1.—Ventilation, drainage and general condition, very good.

TAYLOR COAL AND COKE COMPANY

Searight.—Ventilation, drainage and general condition, very good.

REPUBLIC IRON AND STEEL COMPANY

Republic.—Ventilation, drainage and general condition, very good.

MONONGAHELA RIVER CONSOLIDATED COAL AND COKE COMPANY

Albany.—Ventilation good. Drainage and general condition, very good.

Chamouni.—Ventilation, drainage and general condition, good.

BRIER HILL COKE COMPANY

Brier Hill.—Ventilation, drainage and general condition, very good.

ORIENT COKE COMPANY

Orient.—Ventilation, drainage and general condition, very good. A portion of the airways was obstructed with falls of slate, but has been thoroughly cleaned up and put in good condition.

W. HARRY BROWN

Alicia.—Ventilation, drainage and general condition, very good.

W. J. RAINEY

Allison Nos. 1 and 2.—Ventilation, drainage and general condition, very good.

LA BELLE COKE COMPANY

La Belle.—Ventilation, drainage and general condition, good.

STRUTHERS COAL AND COKE COMPANY

Struthers.—Ventilation, drainage and general condition, good. The roof conditions are exceptionally bad and it requires great care in timbering to keep it in safe condition.

CENTURY COKE COMPANY

Century.—Ventilation, drainage and general condition, very good.

ISABELLA CONNELLSVILLE COKE COMPANY

Isabel.—Ventilation, drainage and general condition, very good.

UNION CONNELLSVILLE COKE COMPANY

Katharine.—Ventilation, drainage and general condition, very good.

HUSTEAD-SEMANS COAL AND COKE COMPANY

Hustead.—Ventilation, drainage and general condition, very good.

ETNA CONNELLSVILLE COKE COMPANY

Garwood.—Ventilation, drainage and general condition, very good.

HENDERSON COAL COMPANY

Umpire.—Ventilation and drainage, good.

PROSPECT COAL AND COKE COMPANY

Solon.—Ventilation, drainage and general condition, very good. A fire broke out in the coal near the crop, but did not do any damage to the mine.

BROWNSVILLE COKE COMPANY

Ganns.—Ventilation and drainage, good.

SUNSHINE COAL AND COKE COMPANY

Eleanor.—Ventilation and drainage, good.

CHAMPION CONNELLSVILLE COKE COMPANY

Champion.—Ventilation, drainage and general condition, good.

LUZERNE COAL AND COKE COMPANY

Luzerne.—Ventilation, drainage and general condition, good.

IMPROVEMENTS

H. C. FRICK COKE COMPANY

Bridgeport.—Built 28 permanent stoppings and one overcast of fireproof material. Installed one electric duplex pump.

Filbert Nos. 1 and 2.—Built 69 stoppings and 2 overcasts of fireproof material. Installed one 16-ton and one 7-ton compressed air locomotive.

Dearth No. 1.—Built 13 stoppings and 2 overcasts of fireproof material; also a concrete wall and stoppings for protection against water from adjacent mine, and a new barn with feed room, 106 by 32 feet, on the surface.

THOMPSON CONNELLSVILLE COKE COMPANY

Thompson No. 1.—Built a pump house of fireproof material. Installed one 17-ton compressed air locomotive. Installed a telephone system.

TOWER HILL CONNELLSVILLE COKE COMPANY

Tower Hill No. 1.—Built 12 stoppings of fireproof material. Constructed 15 rectangular coke ovens.

Tower Hill No. 2.—Built 63 stoppings and 1 overcast of fireproof material.

CONNELLSVILLE CENTRAL COKE COMPANY

Herbert.—Built 12 stoppings and 1 overcast of fireproof material. Installed a telephone system to the main sections of the mine.

TAYLOR COAL AND COKE COMPANY

Searight.—Built 10 brick stoppings. Installed an aerial ash conveyor, 2,050 feet in length, equipped with screening and elevating machinery, both electrically operated; two Stauft compressed air coke drawing machines; one 70 H. P. boiler at pumping station. Improved sanitary drainage for village and wired all dwelling houses for electric lights.

REPUBLIC IRON AND STEEL COMPANY

Republic.—Built 35 stoppings and 2 overcasts of fireproof material, and lined the approach to the air shaft with tile and concrete. Relaid the main haulage, with 60-pound steel rails, a distance of 3,000 feet. Laid 9,000 feet of low pressure air line, 4,000 feet of high pressure air line and installed 3 charging stations. Also installed one compressed air engine for chain haul at shaft bottom, one 17-ton compressed air locomotive, two Sullivan compressed air mining machines, and added 150 steel mine cars to equipment. Built 11 dwelling houses, a First Aid training room, an addition to boiler house, new outside stables, a supply store and a concrete bin, with equipment for dumping slate from top of head frame.

Installed one 387 H. P. Sterling boiler and laid new steam line to ventilating fan.

MONONGAHELA RIVER CONSOLIDATED COAL AND COKE COMPANY

Albany.—Built 4 inside pump houses of brick.

Chamouni.—Built 1 overcast, 7 stoppings and 2 pump houses of brick.

BRIER HILL COKE COMPANY

Brier Hill.—Built 62 brick stoppings. Installed one 8-ton compressed air locomotive and one 2,500 H. P. feed water heater and purifier for boilers. Laid 10,000 feet of water line for sprinkling the working faces.

ORIENT COKE COMPANY

Orient.—Built 22 brick stoppings; also an outside storage house for explosives. Constructed a reservoir, with a capacity of 7,000,000 gallons, and furnished water to all the dwelling houses.

W. HARRY BROWN

Alicia.—Built 56 brick stoppings and 11 brick overcasts; also a tool house of tile and concrete.

W. J. RAINEY

Allison Nos. 1 and 2.—Built 58 brick stoppings and 4 brick and steel overcasts. Installed one 12-ton electric locomotive. Completed bore hole for permanent compressed air supply to the mine. Built brick boiler house and installed two 300 H. P. water tube boilers; also installed new hoisting engine at No. 2 shaft. Built blacksmith, machine and carpenter shops.

LA BELLE COKE COMPANY

La Belle.—Built 15 brick stoppings and an overhead trestle from washer to dump.

ISABELLA CONNELLSVILLE COKE COMPANY

Isabel.—Built 4 brick stoppings, 3 brick overcasts, concrete lining at shaft bottoms, 17 dwelling houses and 159 coke ovens. Installed one 7-ton electric locomotive, one lathe, drill press, pipe cutting machine, band saw, two Jeffrey mining machines, 6 Sullivan puncher type mining machines and an empty car lift at shaft bottom.

HUSTEAD-SEAMANS COAL AND COKE COMPANY

Hustead.—Built 24 brick stoppings, 3 brick overcasts, 190 rectangular coke ovens, blacksmith shop, repair shop, machine shop and supply house. Installed two boilers.

ETNA CONNELLSVILLE COKE COMPANY

Garwood.—Built 7 brick stoppings and 1 fireproof powder house; installed one boiler and one air receiver.

MINE FOREMEN'S, ASSISTANT MINE FOREMEN'S AND FIRE BOSSES' EXAMINATIONS

The annual examination of applicants for certificates of qualification as mine foremen, assistant mine foremen and fire bosses was held in Goldstein Hall, Brownsville, May 6, 7 and 8. The Board of Examiners was composed of W. H. Howarth, Inspector; John J. McIntyre, Superintendent, and J. O. Van Riper, Miner.

There were 28 applicants for certificates of qualification as mine foremen and assistant mine foremen and 44 applicants for certificates of qualification as fire bosses. The following persons passed a satisfactory examination and were granted certificates:

MINE FOREMEN

First Grade

George W. Hillen, Clarence Nicholson, New Salem, R. F. D. No. 18; John Bohn, New Salem, R. F. D. No. 19; Michael J. Flaherty, New Salem; George W. Minto, Brier Hill; David S. Smith, Brownsville, R. F. D. No. 20; Charles E. Bortz, Uniontown, R. F. D. No. 4.

ASSISTANT MINE FOREMEN

Richard Ford, New Salem, R. F. D. No. 19; Jacob G. Presock, Ray Davis, Republic; Martin McNansky, Brownsville, R. F. D. No. 20; Robert P. Wyatt, Brownsville; Robert Charlton, West Brownsville; George Matthews, Millsboro.

FIRE BOSSES

John F. Westcoat, Leon Hannoy, Arthur L. Teasdale, Elzie F. Wyatt, Brownsville; Charles E. Murphy, Howard P. Zeller, John D. Cullen, Martin Ryan, Frank H. Murphy, Jesse Carnes, Peter McDonaugh, Lewis Francis, Marshall W. Kemerer, William P. Kennedy, Joseph Grimes, Republic; William Wetterau, George McKovicts, John William Lake, Joseph Carroll, Oliver R. Stidard, Fredericktown; John J. Cullenan, Charles M. Nuttall, New Salem, R. F. D. No. 18; John Maslo, New Salem, R. F. D. No 19; Michael Kukol, La Belle; August Reshenberg, Orient; Joseph F. Long, Brownsville, R. F. D. No. 20.

SEVENTEENTH DISTRICT

ALLEGHENY AND WASHINGTON COUNTIES

Pittsburgh, Pa., February 18, 1914.

Hon. James E. Roderick, Chief of Department of Mines:

Sir: I have the honor to transmit herewith my report of the Seventeenth Bituminous District for the year ending December 31, 1913, in compliance with the Act of Assembly of June 9, 1911.

The report contains the usual tables and statistics, a brief description of the condition of the mines and the most important improvements made during the year; also a report of the annual examination of applicants for certificates of qualification as Mine Foremen, Assistant Mine Foremen and Fire Bosses.

The good condition of the coal trade and a plentiful supply of labor during the year resulted in an increase in production of 328,758 tons over 1912. There was also an increase of seven fatal accidents.

Respectfully submitted,

JOHN I. PRATT,
Inspector.

SUMMARY OF STATISTICS

Number of mines,	36
Number of mines in operation,	33
Number of tons of coal shipped to market,	6,031,757
Number of tons used at mines for steam and heat,	102,633
Number of tons sold to local trade and used by employes,	81,227
Number of tons used in the manufacture of coke,	....
Number of tons of coal produced,	6,215,617
Number of tons of coke produced,	....
Number of coke ovens,	....
Number of coke ovens in operation,	....
Number of tons of coal produced by pick mining,	1,592,454
Number of tons produced by compressed air machines,	125,861
Number of tons produced by electrical machines,	4,497,302
Number of persons employed inside of mines,	6,674
Number of persons employed outside, including coke workers,	869
Number of persons employed at manufacture of coke,	....
Number of fatal accidents inside of mines,	16
Number of fatal accidents outside,	3
Number of non-fatal accidents inside of mines,	19
Number of non-fatal accidents outside,	....
Number of tons of coal produced per fatal accident inside,	388,476
Number of tons produced per fatal accident outside,	2,071,872
Number of tons produced per fatal accident inside and outside,	327,138
Number of persons employed per fatal accident inside,	417
Number of persons employed per fatal accident outside,	289
Number of persons employed per fatal accident inside and outside,	397
Number of persons employed per non-fatal accident inside,	351
Number of persons employed per non-fatal accident outside,	....
Number of persons employed per non-fatal accident inside and outside,	397
Number of wives made widows,	9
Number of children made orphans,	19
Number of steam locomotives used inside of mines,	....
Number of steam locomotives used outside,	4
Number of compressed air locomotives used inside,	1
Number of compressed air locomotives used outside,	....
Number of electric motors used inside,	70
Number of electric motors used outside,	....
Number of gasoline locomotives used inside,	....
Number of fans in use,	30
Number of furnaces in use,	5
Number of gaseous mines in operation,	13
Number of non-gaseous mines in operation,	20
Number of new mines opened,	2
Number of old mines abandoned,	2

TABLE A

PRODUCTION OF COAL

Names of Operators	Tons
Pittsburgh Terminal Railroad and Coal Company,	2,808,189
Pittsburgh Coal Company,	1,924,080
Crescent Coal Company,	362,331
Youghiogheny and Ohio Coal Company,	275,824
New York and Cleveland Gas Coal Company,	275,792
Pittsburgh-Buffalo Company,	275,225
Monongahela River Consolidated Coal and Coke Company,	133,750
Mans Williams Coal Company,	34,931
Sorg Brothers,	26,933
Williams Fuel Company,	23,782
Harpers Coal Company,	22,998
Paul Coal Company,	12,508
Weinman Brothers,	8,617
Vogel and Weinman,	7,840
Sampson and Hormel,	6,000
W. S. B. Hays,	5,980
James T. Fox,	3,906
Shearn Brothers,	2,981
John Peterman,	2,950
Steele and Scott,	1,000
Total,	6,215,617

Production by Counties

Allegheny,	5,988,963
Washington,	226,654
Total,	6,215,617

TABLE B.—Fatal and non-fatal accidents inside and outside of mines; number of tons of coal produced per accident; number of persons employed; number employed per accident

Names of Operators	Fatal Accidents			Non-fatal Accidents			Tons of coal produced per fatal accident inside	Tons of coal produced per non-fatal accident inside	Number of employes inside	Number of employes outside	Total number of employes	Number of employes inside per fatal accident	Number of employes outside per fatal accident	Number of employes inside per non-fatal accident	Number of employes outside per non-fatal accident
	Inside	Outside	Total	Inside	Outside	Total									
Pittsburgh Terminal Railroad and Coal Co.,	10	2	12	9	......	9	280,819	312,021	3,066	377	3,443	307	189	340	....
Pittsburgh Coal Co., ...	4	......	4	7	......	7	481,020	274,869	2,119	289	2,408	530	....	303	....
Crescent Coal Co., ...	1	......	1	1	......	1	362,231	362,331	350	42	392	350	....	350	....
Youghiogheny and Ohio Coal Co., ...	......	1	1	......	......	......	....	275,824	206	20	226	....	20	....	....
Pittsburgh-Buffalo Co., ...	1	......	1	2	......	2	275,225	137,613	231	24	255	231	....	116	....
Miscellaneous Companies, ...	......	......	......	......	......	......	....	....	702	117	819	....	....	....	....
Totals and averages for district, ...	16	3	19	19	......	19	388,476	327,138	6,674	869	7,543	417	289	351	....

TABLE C.—Classification of Fatal Accidents Inside and Outside of Mines

	Months													
	January	February	March	April	May	June	July	August	September	October	November	December	Totals	Percentages
Causes of Accidents Inside														
Falls of coal, ...	....	....	....	....	....	....	1	....	....	....	....	....	1	6.25
Falls of slate, ...	2	....	....	....	1	2	1	....	....	1	....	1	8	50.00
Falls of roof, ...	....	....	....	....	....	....	1	1	....	....	....	1	3	18.75
Mine cars, ...	....	....	....	....	....	1	....	1	1	....	....	1	4	25.00
Totals, ...	2	....	....	....	1	3	3	2	1	1	....	3	16	100.00
Causes of Accidents Outside														
Cars, ...	....	1	....	....	....	....	....	....	....	....	....	....	1	3.33
Machinery, ...	....	....	....	....	....	....	....	....	....	....	....	1	1	3.33
Electricity, ...	....	....	1	....	....	....	....	....	....	....	....	....	1	3.34
Totals, ...	....	1	1	....	....	....	....	....	....	....	....	1	3	100.00
Grand totals inside and outside, ...	2	1	1	....	1	3	3	2	1	1	....	4	19	......

TABLE D.—Classification of Non-Fatal Accidents Inside and Outside of Mines

	Months													
	January	February	March	April	May	June	July	August	September	October	November	December	Totals	Percentages
Causes of Accidents Inside														
Falls of coal, ...	....	....	....	....	1	....	....	....	....	....	....	....	1	5.26
Falls of slate, ...	....	....	....	1	....	....	1	1	....	....	....	....	3	15.79
Falls of roof, ...	1	....	....	2	....	1	....	....	2	....	1	....	7	36.85
Mine cars, ...	....	....	1	....	1	1	2	1	....	....	....	....	6	31.58
Blasts, premature and otherwise, ...	....	....	....	....	....	....	....	....	....	....	....	1	1	5.26
Machinery, ...	....	1	....	....	....	....	....	....	....	....	....	....	1	5.26
Totals, ...	1	1	1	3	2	2	3	2	2	....	1	1	19	100.00
Causes of Accidents Outside (No Accidents)														

TABLE E.—Occupations of Persons Killed or Fatally Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
Inside													
Miners,	1	....	....	....	....	1	1	....	1	....	....	1	5
Machine runners,	....	....	....	....	....	....	1	1	....	....	....	....	2
Machine loaders,	1	....	....	....	1	1	1	....	....	1	....	2	7
Drivers and runners,	....	....	....	....	....	....	....	1	....	....	....	....	1
Company men,	....	....	....	....	....	1	....	....	....	....	....	....	1
Totals,	2	....	....	....	1	3	3	2	1	1	....	3	16
Outside													
Engineers and firemen,	....	....	....	....	....	....	....	....	....	....	....	1	1
Company men,	....	....	1	....	....	....	....	....	....	....	....	....	1
Oilers,	....	1	....	....	....	....	....	....	....	....	....	....	1
Totals,	....	1	1	....	....	....	....	....	....	....	....	1	3
Grand totals inside and outside,	2	1	1	....	1	3	3	2	1	1	....	4	19

TABLE F.—Occupations of Persons Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
Inside													
Fire bosses,	....	....	....	....	....	....	....	....	2	....	....	....	2
Miners,	1	....	....	1	....	....	....	1	....	....	1	....	4
Machine runners,	....	1	....	....	1	....	....	....	....	....	....	....	2
Machine loaders,	1	....	....	....	1	1	1	....	....	1	....	2	7
Drivers and runners,	....	....	1	....	....	1	1	....	....	....	....	....	3
Motormen,	....	....	....	....	....	....	....	1	....	....	....	....	1
Totals,	1	1	1	3	2	2	3	2	2	....	1	1	19
Outside (No Accidents)													

TABLE G.—Nationality of Persons Killed or Fatally Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
American,	....	1	....	....	....	....	....	1	....	....	....	1	3
English,	1	....	....	....	....	....	....	....	....	....	....	....	1
German,	....	....	....	....	....	....	1	....	....	....	....	....	1
Polish,	....	....	....	....	1	1	1	....	....	....	....	1	4
Hungarian,	....	....	1	....	....	1	....	....	1	1	....	1	5
Italian,	1	....	....	....	....	....	1	1	....	....	....	1	4
Lithuanian,	....	....	....	....	....	1	....	....	....	....	....	....	1
Totals,	2	1	1	....	1	3	3	2	1	1	....	4	19

TABLE H.—Nationality of Persons Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
American,	1	....	....	1	....	....	....	1	1	....	....	....	4
English,	....	....	....	....	1	....	....	....	1	....	....	....	2
German,	....	1	....	....	....	....	....	....	....	....	....	....	1
Polish,	....	....	....	2	....	1	1	1	....	....	....	....	5
Italian,	....	....	1	....	....	....	....	....	....	....	1	1	3
Lithuanian,	....	....	....	....	....	1	1	....	....	....	....	....	2
Russian,	....	....	....	....	1	....	1	....	....	....	....	....	2
Totals,	1	1	1	3	2	2	3	2	2	....	1	1	19

TABLE I.—Operators and mines, kind of openings, type and size of fans, size of furnaces, volume of air produced by fan or furnace per minute, number of splits of air currents and number of persons employed inside

Names of Operators and Mines	Kind of opening	Gaseous or non-gaseous	Method of ventilation	Diameter of fan in feet and inches	Width of blades in feet and inches	Depth of blades in feet and inches	Number of revolutions per minute	Water gauge developed—in inches	Name of fan	Power used	Area of furnace bars in square feet	Number of splits of air currents	Number of cubic feet of air per minute entering the mine at inlet	Total number of cubic feet of air per minute circulating in all the splits	Number of cubic feet of air per minute passing out at outlet	Number of persons employed inside
Pittsburgh Terminal Railroad and Coal Co.																
Pittsburgh Terminal Nos. 1 and 2.	Shaft,.....	Gaseous,..	Fan, ...	6.0 11.0 11.0	1.8 4.4 4.4	1.8 5.0 5.0	500 170 180	...... 2.0 2.8	American Blower, Capell, ... Capell, ...	Electricity,. Steam,...... Steam,......		7	169,000	101,100	178,000	623
Pittsburgh Terminal No 3, ...	Shaft,.....	Gaseous,..	Fan, ...	13.6	7.0	6.0	162	2.4	Capell, ...	Steam,......	..	8	145,000	110,500	154,000	667
Pittsburgh Terminal No. 4, ... Pittsburgh Terminal No. 5,*	Shaft,...	Gaseous,..	Fan, ...	12.6	7.0	6.0	120	1.5	Capell, ...	Electricity,.	..	6	120,000	110,400	132,000	480
Pittsburgh Terminal No. 6, ...	Drift,.....	Gaseous,..	Fan, ...	13.6	7.0	6.0	163	2.5	Capell, ...	Electricity,.	..	9	191,000	138,000	200,000	616
Pittsburgh Terminal No. 7, ...	Drift,.....	Non-gas.,.	4 Fans,.	6.0 6.0 8.0 11.0	1.8 1.8 3.2 4.4	1.8 1.8 3.1 4.4	290 320 310 150	.4 1.0 1.0 1.2	American Blower American Blower Stine, ... Capell, ...	Electricity,. Electricity,. Electricity,. Steam,......		12	173,000	102,500	184,000	680
Pittsburgh Coal Co.																
Fair Haven, ...	Drift,.....	Gaseous,..	Fan, ...	13.6	6.6	.....	148	1.9	Vulcan, ...	Steam,......	..	5	80,000	64,500	90,000	188
First Pool Nos. 1 and 3,..	Drift,.....	Non-gas.,.	3 Fans,.	6.0 8.0 8.0	1.6 2.5 2.5	2.2 3.6 3.6	250 250 250	.4 .5 .6	Stine, ...	Electricity,.	..	9	113,000	95,500	126,500	327

*Idle.

First Pool No. 2, ...	Shaft, ...	Gaseous, ..	Fan, ...	13.6	7.0	6.3	......	2.8	Capell, ...	Steam, ...	..	6	120,000	97,000	127,000	383
Idlewood, ...	Drift, ...	Gaseous, ..	Fan, ...	18.0	5.0	5.0	68	1.0	Robinson, .	Steam, ...	..	3	50,000	34,000	61,000	185
Lick Run, ...	Slope, ...	Gaseous, ..	Fan, ...	25.0	8.0	7.0	66	2.0	Vulcan, ...	Steam, ...	..	6	120,000	70,000	128,000	314
Mansfield, ...	Drift, ...	Gaseous, ..	Fan, ...	25.0	8.0	7.0	76	2.4	Vulcan, ...	Electricity, .	..	12	195,000	108,000	212,000	510
Nottingham, ...	Drift, ...	Gaseous, ..	Fan, ...	13.6	6.0	6.0	144	2.4	Capell, ...	Steam, ...	..	5	112,000	66,500	122,000	262
Oak,†	Drift, ...	Gaseous, ..	....	......	......	......	......	......	....	....	..	..	....	....	....	....
Crescent Coal Co.																
Peters Creek No. 1, ...	Drift, ...	Non-gas., .	Fan, ...	5.0	.10	.18	400	.2	American Blower	Electricity, .	..	1	40,000	20,000	50,000	10
Peters Creek No. 2, ...			2 Fans, .	4.0 8.0	.9 .12	.15 3.6	400 225	.1 .2	American Blower	Electricity, .	..	3	102,000	43,000	110.000	266
Peters Creek No. 3, ...			Fan, ...	7.0	2.0	2.9	300	.5	Stine, ...	Electricity, .	..	3	54,000	34,000	64,000	74
Youghiogheny and Ohio Coal Co.																
Thompson, ...	Drift, ...	Gaseous, ..	Fan, ...	8.0	2.2	4.0	153	.2	Jeffrey, ...	Steam, ...	..	4	89,000	50,000	98,000	206
New York and Cleveland Gas Coal Co.																
Plum Creek, ...	Drift, ...	Non-gas., .	Furnace, ..	......	......	......	......	......	....	....	44	6	70,000	58,000	79,000	244
Sandy Creek, ...	Drift, ...	Non-gas., .	Furnace, ..	......	......	......	......	......	....	....	42	2	41,000	12,000	51,000	45
Pittsburgh-Buffalo Co.																
Bertha, ...	Drift, ...	Non-gas., .	2 Fans, .	10.0 12.0	4.5 4.0	3.0 6.0	170 128	.5 1.5	Buffalo Blower	Electricity, .	..	5	109,000	54,000	114,000	231
Monongahela River Consolidated Coal and Coke Co.																
Becks Run, ...	Drift, ...	Gaseous, ..	Fan, ...	8.0	2.6	2.4	325	1.5	Stine, ...	Electricity, .	..	3	70,000	27,000	80,000	132
Mans Williams Coal Co.																
Bulls Run, ...	Drift, ...	Non-gas., .	Natural, ..	......	......	......	......	......		....	..	2	12,000	7,400	16,000	43
Sorg Brothers																
Sorg, ...	Drift, ...	Non-gas., .	Furnace, ..	......	......	......	......	......	....	....	44	1	12,000	4,000	15,000	32
Williams Fuel Co.																
Leek Run, ...	Drift, ...	Non-gas., .	Natural, ..	......	......	......	......	......	....	....	..	1	10,000	8,000	12,000	66
Harpers Coal Co.																
Harper, ...	Drift, ...	Non-gas., .	Natural, ..	......	......	......	......	......	....	....	..	1	10,000	7,000	14,000	29
Paul Coal Co.																
Paul, ...	Drift, ...	Non-gas., .	Fan, ...	5.0	1.8	2.0	250	.5	Stine, ...	Electricity, .	..	1	12,000	6,600	15,000	18
Weinman Brothers																
Weinman, ...	Drift, ...	Non-gas., .	Furnace, ..	......	......	......	......	......	....	....	42	1	10,000	6,000	12,000	19
Vogel and Weinman																
Hampton, ...	Drift, ...	Non-gas., .	Furnace, ..	......	......	......	......	......	....	....	42	1	13,000	5,000	16,000	25
Sampson and Hormel																
Sampson, ...	Drift, ...	Non-gas., .	Natural, ..	......	......	......	......	......	....	....	..	1	8,000	5,000	10,000	9

†Abandoned.

TABLE I.—Continued

Names of Operators and Mines	Kind of opening	Gaseous or non-gaseous	Method of ventilation	Diameter of fan in feet and inches	Width of blades in feet and inches	Depth of blades in feet and inches	Number of revolutions per minute	Water gauge developed—in inches	Name of fan	Power used	Area of furnace bars in square feet	Number of splits of air currents	Number of cubic feet of air per minute entering the mine at inlet	Total number of cubic feet of air per minute circulating in all the splits	Number of cubic feet of air per minute passing out at outlet	Number of persons employed inside
W. S. B. Hays Calhoun, ...	Drift, ...	Non-gas., .	Natural, ..	......	......	......	......	......	....	....	..	1	6,000	3,000	10,000	9
James T. Fox Fox, ...	Drift, ...	Non-gas., .	Fan, ...	10.0	4.0	3.6	52	.3	Irwin, ...	Steam,......	..	1	7,000	4,000	11,000	8
Shearn Brothers Shearn, ...	Drift, ...	Non-gas., .	Natural, ..	......	......	......	......	......	....	....	..	1	5,000	3,000	8,000	7
John Peterman Peterman, ...	Drift, ...	Non-gas., .	Natural, ..	......	......	......	......	......	....	....	..	1	4,000	2,000	6,000	8
Steele and Scott Ward,†	Drift, ...	Non-gas., .	Natural, ..	......	......	......	......	......	....	....	..	1	4,000	2,000	6,500	8
United States Bureau of Mines Experimental,*	Drift, ...	Non-gas., .	Fan, ...	8.0	2.6	2.0	56	1.5	Stine, ...	Electricity,.	..	..	....	....	....	....

*Idle.
†Abandoned.

TABLE J.—Mines using coal cutting machines, power used, geological and local names of seams, thickest and thinnest seams where machines are used, and the approximate number of tons produced by machines

Names of Operators	Names of Mines	Kind of opening	Gaseous or non-gaseous	Number of mining machines used	Power used by machines	Geological and local names of seams	Average thickness in inches	Height of Seam in Inches		Approximate number of tons produced by machines
								Thickest	Thinnest	
Pittsburgh Terminal Railroad and Coal Co.	Pittsburgh Terminal Nos. 1 and 2.	Shaft, ...	Gaseous, ..	19	Electricity, ..	Pittsburgh Thin,	65	68	62	585,001
	Pittsburgh Terminal No. 3.	Shaft, ...	Gaseous, ..	21			65	68	62	528,399
	Pittsburgh Terminal No. 4.	Shaft, ...	Gaseous, ..	12			68	72	64	260,256
	Pittsburgh Terminal No. 6.	Drift, ...	Gaseous, ..	16			62	64	60	541,080
	Pittsburgh Terminal No. 7.	Drift, ...	Non-gas., .	20			66	71	62	426,796
Totals, ...	....	....	....	88	....	....	......	......	......	2,341,532
Pittsburgh Coal Co., ...	Fair Haven, ...	Drift, ...	Gaseous, ..	7	Electricity, ...	Pittsburgh Thin,	60	66	54	100,589
	First Pool Nos. 1 and 3,	Drift, ...	Non-gas., .	21	Compressed air,					111,952
				16	Electricity, ...		68	79	58	130,012
	First Pool No. 2, ...	Shaft, ...	Gaseous, ..	4	Compressed air,		67	78	56	13,909
				15	Electricity, ...					279,493
	Idlewood, ...	Drift, ...	Gaseous, ..	4	Electricity, ...		64	66	62	86,349
	Lick Run, ...	Slope, ...	Gaseous, ..	13	Electricity, ...		60	66	54	229,516
	Mansfield, ...	Drift, ...	Gaseous, ..	18	Electricity, ...		66	70	62	316,348
	Nottingham, ...	Drift, ...	Gaseous, ..	12	Electricity, ...		66	76	57	169,388
Totals, ...	....	....	....	110	....	....	......	......	......	1,437,556

TABLE J.—Continued

Names of Operators	Names of Mines	Kind of opening	Gaseous or non-gaseous	Number of mining machines used	Power used by machines	Geological and local names of seams	Average thickness in inches	Height of Seam in Inches		Approximate number of tons produced by machines
								Thickest	Thinnest	
Crescent Coal Co.,	Peters Creek No. 1, Peters Creek No. 2, Peters Creek No. 3,	Drift,	Non-gas.,	1 10 3	Electricity,	Pittsburgh Thin,	63 62 69	66 70 72	60 54 66	8,779 212,313 103,588
Totals,				14						324,680
Youghiogheny and Ohio Coal Co.,	Thompson,	Drift,	Gaseous,	6	Electricity,	Pittsburgh Thin,	65	72	58	206,563
Pittsburgh-Buffalo Co.,	Bertha,	Drift,	Non-gas.,	10	Electricity,	Pittsburgh Thin,	61	70	52	195,225
Monongahela River Consolidated Coal and Coke Co.	Becks Run,	Drift,	Gaseous,	6	Electricity,	Pittsburgh Thin,	68	74	62	105,489
Paul Coal Co.,	Paul,	Drift,	Non-gas.,	1	Electricity,	Pittsburgh Thin,	58	68	47	12,118
Grand totals,				285						4,623,163

TABLE 1.—Operators, Location of Mines, Railroads, etc.

Names of Operators and Mines	County	Name of General Superintendent	Post Office	Name of Superintendent	Post Office	Railroad to Mine
Pittsburgh Terminal Railroad and Coal Co.						
Pittsburgh Terminal Nos. 1 and 2.	Allegheny, ...	W. W. Keefer, ...	Pittsburgh, 507 Wabash Bldg.	John Mahony, ...	Castle Shannon, ...	West Side Belt
Pittsburgh Terminal No. 3.				John Mahony, ...	Castle Shannon, ...	
Pittsburgh Terminal No. 4.				George Atkins, ...	Horning, ...	
Pittsburgh Terminal No. 5.*				George Atkins, ...	Horning, ...	
Pittsburgh Terminal No. 6.				George Atkins, ...	Horning, ...	
Pittsburgh Terminal No. 7.				P. J. McGarvey, ...	Large, ...	
Pittsburgh Coal Co.						
Fair Haven, ...	Allegheny, ...	George W. Schluederberg	Pittsburgh, Oliver Building	James Porter, ...	Broughton, ...	Pittsburgh and Castle Shannon
First Pool Nos. 1 and 3,..	Allegheny, ...			H. D. Thompson, ...	Willock, ...	B. and O.
First Pool No. 2, ...	Allegheny, ...			H. D. Thompson, ...	Willock, ...	B. and O.
Idlewood, ...	Allegheny, ...			Harry Cattley, ...	Loupurex, ...	P. C. C. and St. L.
Lick Run, ...	Allegheny, ...			James Porter, ...	Broughton, ...	B. and O.
Mansfield, ...	Allegheny, ...			Emil Geary, ...	Loupurex, ...	P. C. C. and St. L.
Nottingham, ...	Washington, .			William Carter, ...	Hackett, ...	B. and O.
Oak,†	Allegheny, ...			James Porter, ...	Broughton, ...	Pittsburgh and Castle Shannon
Crescent Coal Co.						
Peters Creek Nos. 1, 2 and 3.	Allegheny, ...	Joseph Arkwright, ..	Epton, ...	Joseph Arkwright,...	Epton, ...	Pennsylvania and Peters Creek Branch
Youghiogheny and Ohio Coal Co.						
Thompson, ...	Allegheny, ...	A. W. Osborne, ...	Cleveland, Ohio, 1240 Leader-News Bldg.	William Findley, ...	Epton, ...	Pennsylvania and Peters Creek Branch
New York and Cleveland Gas Coal Co.						
Plum Creek, ... Sandy Creek, ...	Allegheny, ...	Hugh Dunning, ...	Wilkinsburg, R. F. D. No. 1.	Hugh Dunning, ...	Wilkinsburg, R. F. D. No. 1.	Pennsylvania, Allegheny Division
Pittsburgh-Buffalo Co., ...						
Bertha, ...	Allegheny, ...	H. Booker.	Canonsburg, ...	William McCoy, ...	Bruceton, ...	B. and O.

---

*Idle.
†Abandoned.

TABLE 1.—Continued

Names of Operators and Mines	County	Name of General Superintendent	Post Office	Name of Superintendent	Post Office	Railroad to Mine
Monongahela River Consolidated Coal and Coke Co. Becks Run,	Allegheny,	George W. Schluederberg	Pittsburgh, Oliver Building.	William Black,	Redman Mills,	P. V. and C.
Mans Williams Coal Co. Bulls Run,	Allegheny,	Robert H. Heath,	Glassport,	Robert H. Heath,	Glassport,	Union
Sorg Brothers Sorg,	Allegheny,	John L. Sorg,	Homestead, R. F. D. No. 1.	John L. Sorg,	Homestead, R. F. D. No. 1.	Union
Williams Fuel Co. Leek Run,	Allegheny,	John B. Sweeney,	McKeesport,	John B. Sweeney,	McKeesport,	B. and L. E.
Harpers Coal Co. Harper,	Allegheny,	Thomas Harper,	Turtle Creek,	Thomas Harper,	Turtle Creek,	B. and L. E.
Paul Coal Co. Paul,	Allegheny,	J. I. Davis,	Pittsburgh, 1765 West Liberty Avenue.	J. I. Davis,	Pittsburgh, 1765 West Liberty Avenue	None
Weinman Brothers, Weinman,	Allegheny,	Jacob Weinman, Jr.,	Wilkinsburg,	Jacob Weinman, Jr.,	Wilkinsburg,	None
Vogel and Weinman Hampton,	Allegheny,	G. Vogel,	Wilkinsburg,	Jacob Weinman, Jr.,	Wilkinsburg,	None
Sampson and Hormel Sampson,	Allegheny,	Benjamin Hormel,	Wilkinsburg, R. F. D. No. 1.	Benjamin Hormel,	Wilkinsburg, R. F. D. No. 1.	None
W. S. B. Hays Calhoun,	Allegheny,	W. S. B. Hays,	Homestead,	L. O. Hays,	Homestead,	None
James T. Fox Fox,	Allegheny,	James T. Fox,	Pittsburgh,	James T. Fox,	Pittsburgh,	None
Shearn Brothers Shearn,	Washington,	James G. Shearn,	Canonsburg,	James G. Shearn,	Canonsburg,	P. C. C. and St. L.
John Peterman Peterman,	Allegheny,	John Peterman,	Wilkinsburg, R. F. D. No. 1.	John Peterman,	Wilkinsburg, R. F. D. No. 1.	None

Steele and Scott Ward,†	Allegheny, ...	John F. Steele, ...	Pittsburgh, ...	John F. Steele, ...	Pittsburgh, ...	None
United States Bureau of Mines Experimental,*	Allegheny, ...	....	....	H. C. Howarth, ...	Bruceton, ...	B. and O.

*Idle.
†Abandoned.

TABLE 2.—Number of tons of coal mined and tons of coke produced, number of days worked, number of persons employed, number killed and injured, quantity of powder, dynamite and permissible explosives used, etc.

Names of Operators and Mines	County	Number of tons of coal shipped to market	Number of tons used at mines for steam and heat	Number of tons sold to local trade and used by employes	Number of tons used in manufacture of coke	Total production of coal in tons	Total production of coke in tons	Number of coke ovens	Number of days worked	Number of employes	Number of fatal accidents	Number of non-fatal accidents	Explosives			Number of horses and mules
													Number of pounds of powder used	Number of pounds of dynamite used	Number of pounds of permissible explosives used	
Pittsburgh Terminal Railroad and Coal Co.																
Pittsburgh Terminal Nos. 1 and 2,	Allegheny,	670,212	2,138	2,613	....	674,963	....	......	282	680	....	1	67,300	3,100	150	38
Pittsburgh Terminal No. 3,		631,041	5,938	1,862	....	638,841	....	......	274	737	2	2	64,000	1,600	600	31
Pittsburgh Terminal No. 4,		261,909	23,710	692	....	286,311	....	......	187	580	4	1	29,000	400	....	37
Pittsburgh Terminal No. 6,		655,472	6,915	1,137	....	663,524	....	......	271	693	2	3	65,500	....	....	32
Pittsburgh Terminal No. 7,		533,046	6,170	5,334	....	544,550	....	......	268	753	4	2	55,000	3,000	....	46
Totals, ...	....	2,751,680	44,871	11,638	....	2,808,189	....	......	......	3,443	12	9	280,800	8,100	750	184
Pittsburgh Coal Co.																
Fair Haven, ...	Allegheny, ...	121,627	8,833	1,581	....	132,041	....	......	176	217	2	1	8,750	50	100	14
First Pool Nos. 1 and 3,.	Allegheny, ...	304,329	8,825	2,273	....	315,427	....	......	211	378	....	....	41,000	....	....	26
First Pool No. 2, ...	Allegheny, ...	375,021	7,661	....	....	382,682	....	......	214	444	....	....	47,900	....	....	28
Idlewood, ...	Allegheny, ...	137,030	2,702	2,191	....	139,973	....	......	217	156	....	....	13,821	....	....	12
Lick Run, ...	Allegheny, ...	289,443	4,660	1,398	....	295,501	....	......	211	355	1	....	12,750	315	400	28
Mansfield, ...	Allegheny, ...	434,190	593	....	....	434,788	....	......	221	560	1	6	49,204	....	300	42
Nottingham, ...	Washington, ...	217,769	5,535	369	....	223,673	....	......	202	298	....	....	21,740	600	....	27
Totals, ...	....	1,877,459	38,809	7,812	....	1,924,080	....	......	......	2,408	4	7	195,165	965	800	172

Crescent Coal Co.																
Peters Creek No. 1, ...	Allegheny, ..	11,571	....	....	....	11,571	....	......	180	12	....	....	250	....	....	1
Peters Creek No. 2, ...		228,371	3,921	....	....	232,292	....	......	280	296	1	1	13,218	....	....	10
Peters Creek No. 3, ...		118,468	....	....	....	118,468	....	......	272	84	....	....	7,572	....	....	5
Totals, ...	....	358,410	3,921	....	....	362,331	....	......	......	392	1	1	21,040	....	....	16
Youghiogheny and Ohio Coal Co.																
Thompson, ...	Allegheny.	274,369	1,455	....	....	275,824	....	......	266	226	1	....	30,000	....	....	15
New York and Cleveland Gas Coal Co.																
Plum Creek, ...	Allegheny, ...	248,136	1,794	1,714	....	251,644	....	......	201	274	....	....	....	....	....	9
Sandy Creek, ...	Allegheny, ...	23,231	446	471	....	24,148	....	......	112	56	....	....	....	....	....	4
Totals, ...	....	271,367	2,240	2,185	....	275,792	....	......	......	330	....	....	....	....	....	13
Pittsburgh-Buffalo Co.																
Bertha, ...	Allegheny.	268,100	6,500	625	....	275,225	....	......	285	255	1	2	40,000	450	....	20
Monongahela River Consolidated Coal and Coke Co.																
Becks Run, ...	Allegheny, ...	122,046	4,539	7,165	....	133,750	....	......	257	156	....	....	25,000	....	....	13
Mans Williams Coal Co.																
Bulls Run, ...	Allegheny, ...	34,931	....	....	....	34,931	....	......	260	44	....	....	8,732	....	....	4
Sorg Brothers																
Sorg, ...	Allegheny.	26,708	225	....	....	26,933	....	......	297	37	....	....	6,733	....	....	2
Williams Fuel Co.																
Leek Run, ...	Allegheny, ...	23,742	....	40	....	23,782	....	......	286	76	....	....	....	....	....	3
Harpers Coal Co.																
Harper, ...	Allegheny.	22,845	3	50	....	22,998	....	......	249	38	....	....	....	....	....	8
Paul Coal Co.																
Paul, ...	Allegheny, ...	....	....	12,508	....	12,508	....	......	272	25	....	....	3,125	25	....	2
Weinman Brothers																
Weinman, ...	Allegheny.	....	....	8,617	....	8,617	....	......	292	20	....	....	2,154	....	....	3
Vogel and Weinman																
Hampton, ...	Allegheny, ...	....	70	7,770	....	7,840	....	......	234	34	....	....	1,942	....	....	6
Sampson and Hormel																
Sampson, ...	Allegheny, ...	....	....	6,000	....	6,000	....	......	132	11	....	....	1,500	....	....	1
W. S. B. Hays																
Calhoun, ...	Allegheny, ...	....	....	5,980	....	5,980	....	......	299	11	....	....	1,000	....	....	1

TABLE 2.—Continued

Names of Operators and Mines	County	Number of tons of coal shipped to market	Number of tons used at mines for steam and heat	Number of tons sold to local trade and used by employes	Number of tons used in manufacture of coke	Total production of coal in tons	Total production of coke in tons	Number of coke ovens	Number of days worked	Number of employes	Number of fatal accidents	Number of non-fatal accidents	Explosives			Number of horses and mules
													Number of pounds of powder used	Number of pounds of dynamite used	Number of pounds of permissible explosives used	
James T. Fox Fox, ...	Allegheny, ...	....	....	3,906	....	3,906	....	......	210	10	....	....	....	....	....	1
Shearn Brothers Shearn, ...	Washington, ...	....	....	2,981	....	2,981	....	......	260	9	....	....	747	....	....	1
John Peterman Peterman, ...	Allegheny, ...	....	....	2,950	....	2,950	....	......	208	9	....	....	747	....	....	1
Steele and Scott Ward,†	Allegheny, ...	....	....	1,000	....	1,000	....	......	66	9	....	....	....	....	....	1
Grand totals, ...	....	6,031,757	102,633	81,227	....	6,215,617	....	......	......	7,543	19	19	618,685	9,540	1,550	467

†Abandoned.

TABLE 2—Part 2

Names of Operators	County	Number of Boilers					Locomotives				Number of steam engines of all classes	Total horse power	Number of pumps delivering water to surface	Capacity in gallons per minute	Quantity delivered to surface per minute—gallons	Number of electric dynamos	Number of air compressors
		Cylindrical	Horse power	Tubular	Horse power	Total horse power	Gasoline	Steam	Air	Electric							
Pittsburgh Terminal Railroad and Coal Co.	Allegheny, ...	......	......	30	5,404	5,404	....	....	....	37	24	7,330	27	6,945	4,547	13	1
Pittsburgh Coal Co., ...	Allegheny, .. Washington,	......	......	25	3,650	3,650	....	....	1	19	22	3,215	20	4,578	4,078	7	6
Crescent Coal Co., ...	Allegheny, ...	......	......	3	450	450	....	....	....	6	......	680	1	300	300	2	......
Youghiogheny and Ohio Coal Co.	Allegheny, ...	......	......	2	300	300	....	....	....	2	2	338	3	849	600	1	......
New York and Cleveland Gas Coal Co.	Allegheny, ...	......	......	2	300	300	....	2	....	2	2	350	....	....	....	1	......
Pittsburgh-Buffalo Co., ...	Allegheny, ...	......	......	3	450	450	....	....	....	2	3	425	8	800	800	2	......
Monongahela River Consolidated Coal and Coke Co.	Allegheny, ...	2	75	4	375	450	....	2	....	2	6	356	3	570	570	2	......
Sorg Brothers, ...	Allegheny, ...	......	......	1	10	10	....	....	....	....	1	10	....	....	....	......	......
Williams Fuel Co., ...	Allegheny, ...	......	......	....	....	....	....	....	....	....	......	....	2	120	30	......	......
James T. Fox, ...	Allegheny, ...	......	......	....	....	....	....	....	....	....	......	....	3	300	200	2	......
Steele and Scott, ...	Allegheny, ...	4	120	4	500	620	....	....	....	....	5	600	3	1,000	500	......	......
United States Bureau of Mines,	Allegheny, ...	......	......	1	60	60	....	....	....	....	2	107	....	....	....	1	1
Totals, ...	....	6	195	75	11,499	11,694	....	4	1	70	67	13,411	70	15,462	11,625	31	8

TABLE 3.—Number of Each Class of Employes Inside and Outside of Mines

Names of Operators	County	Inside												Outside								Grand total inside and outside
		Mine foremen	Assistant mine foremen	Fire bosses	Miners	Machine runners	Machine loaders	Machine scrapers	Drivers and runners	Doorboys and helpers	Company men	All other employes	Total inside	Superintendents	Foremen	Blacksmiths and carpenters	Engineers and firemen	Coke employes	Bookkeepers and clerks	All other employes	Total outside	
Pittsburgh Terminal Railroad and Coal Co.	Allegheny, ...	5	17	21	469	97	1,800	97	203	30	142	185	3,066	5	5	48	49	....	10	260	377	3,443
Pittsburgh Coal Co.,...	{ Allegheny, Washington, }	7	17	21	518	91	1,003	83	126	13	158	82	2,119	4	5	32	37	....	10	201	289	2,408
Crescent Coal Co., ...	Allegheny, ...	2	2	....	26	15	244	15	28	....	14	4	350	2	1	7	3	....	1	28	42	392
Youghiogheny and Ohio Coal Co.	Allegheny, ...	1	1	2	46	6	120	6	12	2	5	5	206	1	....	3	2	....	1	13	20	226
New York and Cleveland Gas Coal Co.	Allegheny, ...	2	3	....	248	......	......	......	14	3	16	3	289	1	....	3	5	....	3	29	41	330
Pittsburgh-Buffalo Co.	Allegheny, ...	1	1	1	60	10	110	10	17	1	20	......	231	1	....	3	4	....	1	15	24	255
Monongahela River Consolidated Coal and Coke Co.	Allegheny, ...	1	1	1	20	6	72	6	12	....	13	......	132	....	....	2	7	....	1	14	24	156
Mans Williams Coal Co.	Allegheny, ...	1	....	....	36	......	......	......	4	....	2	......	43	....	....	....	....	....	1	....	1	44
Sorg Brothers, ...	Allegheny, ...	1	....	....	26	......	......	......	2	....	3	......	32	1	....	1	1	....	1	1	5	37
Williams Fuel Co., ..	Allegheny, ...	1	....	....	60	......	......	......	3	....	2	......	66	1	....	2	....	....	2	5	10	76
Harpers Coal Co., ...	Allegheny, ...	1	....	....	24	......	......	......	2	....	....	2	29	1	....	....	....	....	1	7	9	38
Paul Coal Co., ...	Allegheny, ...	1	....	....	2	1	12	1	1	....	....	......	18	1	....	....	....	....	1	5	7	25
Weinman Brothers, ..	Allegheny	1	1	....	15	......	......	......	2	....	....	......	19	....	....	....	....	....	1	....	1	20
Vogel and Weinman, ..	Allegheny, ...	1	1	....	20	......	......	......	2	....	1	......	25	1	....	....	....	....	1	7	9	34
Sampson and Hormel, .	Allegheny, ...	1	....	....	6	......	......	......	1	....	1	......	9	1	....	....	....	....	1	....	2	11
W. S. B. Hays, ...	Allegheny.	1	....	....	7	......	......	......	1	....	....	......	9	1	....	....	....	....	1	....	2	11
James T. Fox, ...	Allegheny, ...	1	....	....	6	......	......	......	1	....	....	......	8	1	....	....	....	....	....	1	2	10
Shearn Brothers, ...	Washington, ..	....	....	....	6	......	......	......	1	....	....	......	7	1	....	....	....	....	1	....	2	9
John Peterman, ...	Allegheny, ...	....	....	....	7	......	......	......	1	....	....	......	8	1	....	....	....	....	....	....	1	9
Steele and Scott,†	Allegheny, ...	1	....	....	6	......	......	......	1	....	....	......	8	1	....	....	....	....	....	....	1	9
Totals, ...	....	30	44	46	1,608	226	3,361	218	434	49	377	281	6,674	25	11	101	108	....	38	586	869	7,543

†Abandoned.

TABLE 3.—Part 2

Names of Operators	County	Average Number of Days Worked												
		January	February	March	April	May	June	July	August	September	October	November	December	Total
Pittsburgh Terminal Railroad and Coal Co.,	Allegheny,	20	13	16	19	23	24	25	26	23	26	23	18	256
Pittsburgh Coal Co.,	Allegheny, Washington,	21	15	14	16	18	19	20	20	17	18	17	13	208
Crescent Coal Co.,	Allegheny,	25	14	25	15	17	16	17	25	23	25	22	20	244
Youghiogheny and Ohio Coal Co.,	Allegheny,	22	18	22	21	23	24	25	23	21	22	21	24	266
New York and Cleveland Gas Coal Co.,	Allegheny,	15	14	12	15	14	15	15	15	15	11	8	7	156
Pittsburgh-Buffalo Co.,	Allegheny,	27	24	24	25	24	25	25	25	25	17	25	19	285
Monongahela River Consolidated Coal and Coke Co.,	Allegheny,	23	21	20	22	24	22	22	19	22	26	20	16	257
Mans Williams Coal Co.,	Allegheny,	25	24	26	26	20	10	12	15	25	26	25	26	260
Sorg Brothers,	Allegheny,	26	25	26	25	28	20	22	26	24	27	24	24	297
Williams Fuel Co.,	Allegheny,	25	21	23	20	26	23	25	27	26	26	20	24	286
Harpers Coal Co.,	Allegheny,	......	......	23	25	26	25	25	26	25	26	25	23	249
Paul Coal Co.,	Allegheny,	26	24	25	22	22	20	15	18	25	27	24	24	272
Weinman Brothers,	Allegheny,	27	24	26	26	26	19	23	21	23	27	24	26	292
Vogel and Weinman,	Allegheny,	24	20	22	19	15	16	17	15	14	24	24	24	234
Sampson and Hormel,	Allegheny,	22	10	11	12	11	10	10	15	14	16	25	26	182
W. S. B. Hays,	Allegheny,	26	25	26	24	25	26	24	20	25	26	26	26	299
James T. Fox,	Allegheny,	23	22	25	20	16	5	7	12	18	19	21	22	210
Shearn Brothers,	Washington,	22	28	21	25	11	20	22	20	23	24	23	26	260
John Peterman,	Allegheny,	23	22	24	20	10	10	7	15	15	19	21	22	208
Steele and Scott,	Allegheny,	22	23	21	......	......	......	....	......	......	......	......	......	66

TABLE 4.—Fatal accidents Inside and Outside of Mines

Date of Accident	Name of Person	Nationality	Occupation	Age	Married or single	Number of widows	Number of orphans	Name of Mine	County	Nature and Cause of Accident in Brief
Jan. 24	Samuel Green, ...	English, ...	Loader, ...	58	M.	1	5	Fair Haven, ...	Allegheny, ..	Fatally injured by fall of slate while picking down coal at face of working place.
29	Bill Tony, ...	Italian, ...	Miner, ...	23	S.	....	....	Pittsburgh Terminal No. 7.		Fatally injured by fall of slate while picking down coal at face of room.
Feb. 24	Robert Welsh, Jr.,	American, ..	Car oiler, ..	15	S.	....	....	Thompson, ...		Instantly killed by falling under mine cars. Outside.
March 2	Peter Molenar, ...	Hungarian, .	Company man,	27	M.	1	2	Pittsburgh Terminal No. 3.		Electrocuted by coming in contact with electric high tension feed line while unloading posts. Outside.
May 24	Jacob Kilboski, ...	Polish, ...	Loader, ...	30	M.	1	2	Pittsburgh Terminal No. 4.		Instantly killed by fall of slate at face of working place.
June 6	John Sashinski, ...	Lithuanian,	Loader, ...	25	S.	....	....	Pittsburgh Terminal No. 7.		Fatally injured by fall of slate at face of working place.
	Paul Tanicko, ...	Hungarian, .	Miner, ...	30	M.	1	2	Pittsburgh Terminal No. 4.		Instantly killed by fall of slate while picking down coal at face of working place.
28	Martin Augulus, ..	Polish, ...	Company man,	40	M.	1	4	Peters Creek No. 2.		Instantly killed by being caught between rib and cars on haulage way.
July 11	Mike Walters, ...	German, ...	Miner, ...	60	M.	1	1	Fair Haven, ...		Fatally injured by fall of coal near face of working place.
17	Anton Ratchel, ...	Polish, ...	Loader, ...	23	S.	....	....	Mansfield, ...		Instantly killed by fall of slate at face of working place.
30	August Frido, ...	Italian, ...	Machine runner	28	S.	....	....	Bertha, ...		Instantly killed by fall of roof at face of of working place.
Aug. 4	Peter Checkrall, ..	Italian, ...	Driver.	26	S.	....	....	Pittsburgh Terminal No. 6.		Fatally injured by being caught between mine car and rib on curve near No. 3 face entry.
7	William Schaeffer,..	American, ..	Machine runner,	27	M.	1	....	Lick Run, ...		Instantly killed by fall of roof while moving machine along face of No. 30 room.
Sept. 4	Louie Malockie, ...	Hungarian, .	Miner, ...	33	S.	....	....	Pittsburgh Terminal No. 7.		Fatally injured. Caught between car and coal at face of working place.
Oct. 6	Mike Toth, ...	Hungarian, .	Loader, ...	26	M.	1	1	Pittsburgh Terminal No. 3.		Instantly killed by fall of slate while picking down coal on rib off No. 4 face entry.

Dec.	3	Mike Obosky, ...	Polish,......	Loader, ...	33	M.	1	2	Pittsburgh Terminal No. 6.	Allegheny, .	Instantly killed by fall of slate at face of working place.
	4	Frank Sholeck, ...	Hungarian, .	Miner, ...	27	S.	....	....	Pittsburgh Terminal No. 7.		Fatally injured by fall of horse-back roof at face of working place.
	6	Jim Gadulas, ...	Italian, ...	Loader, ...	22	S.	....	....	Pittsburgh Terminal No. 4.		Fatally injured. Caught between mine car and rib near shaft bottom.
	12	Harry Goldbaugh, .	American, ..	Engineer, ...	16	S.	....	....	Pittsburgh Terminal No. 4.		Instantly killed. Caught hold of rope with gloved hand and was pulled in between drum and engine shaft. Outside.

TABLE 5.—Non-Fatal Accidents Inside and Outside of Mines

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Name of Mine	County	Nature and Cause of Accident in Brief
Jan. 17	Fritz Victmine,	American,	Miner,	40	M.	Fair Haven,	Allegheny,	Body and arm injured by fall of roof when drawing post at the face of his working place.
Feb. 22	Walter Smith,	German,	Machine runner,	26	S.	Pittsburgh Terminal No. 7.		Thumb and fingers amputated—caught between two cog wheels.
March 27	Don Dombrell,	Italian,	Driver,	21	S.	Bertha,		Leg broken by falling under mine car on motor haulage road.
April 22	Joe Orwaski,	Polish,	Loader,	45	M.	Pittsburgh Terminal No. 6.		Leg broken by fall of horse-back roof at the face of his working place.
	Tony Sebeski,	Polish,	Loader,	30	M.	Pittsburgh Terminal No. 6.		Back injured by fall of horse-back roof at the face of his working place.
28	Edward Geiger,	American,	Miner,	19	S.	Pittsburgh Terminal No. 2.		Leg broken by fall of slate at the face of his working place.
May 9	John Powers,	English,	Machine runner,	39	M.	Bertha,		Fingers broken—caught between the trolley pole and motor on haulage way.
17	John Colleck,	Russian,	Loader,	46	M.	Mansfield,		Dislocation of hip and scalp wound by fall of coal at the face of his working place.
June 20	Martin Bojavish,	Polish,	Loader,	37	M.	Mansfield,		Arm broken by fall of roof at the face of his working place.
23	Joe Swacus,	Lithuanian,	Driver,	26	M.	Pittsburgh Terminal No. 6.		Legs broken—caught between cars he left standing on haulage way.
July 15	Charles Ferris,	Russian,	Driver,	26	S.	Mansfield,		Body injured when coupling the cars on eighteen-butt entry. He slipped and fell between the bumpers of the cars.
17	Tony Bayone,	Polish,	Loader,	27	S.	Pittsburgh Terminal No. 3.		Leg and arm broken by fall of slate when shoveling coal at the face of his working place.
19	Mike Stencheck,	Lithuanian,	Loader,	35	S.	Pittsburgh Terminal No. 3.		Leg broken—caught between mine car and road bed, while trying to lift car on track on No. 1 butt entry.
Aug. 22	Carol Grugo,	Polish,	Miner,	47	M.	Mansfield,		Leg broken by fall of slate at face of working place.
25	Willis Curry,	American,	Motorman,	21	S.	Peters Creek No. 2.		Compound fracture of both legs below the knees by mine cars on No. 5 butt entry.

Sept.	6	Joseph Cass, ...	American, ..	Fire boss, ...	32	M.	Mansfield, ...	Allegheny, .	Leg and back injured.
		Joseph Platts, ...	English, ...	Fire boss, ...	37	M.			Back and hip injured by fall of roof on side track of main haulage way.
Nov.	12	Frank Gunernos, ...	Italian, ...	Miner, ...	40	M.	Pittsburgh Terminal No. 7.		Pelvic bone broken on right side by fall of horse-back roof at face of working place.
Dec.	6	Frank Morow, ...	Italian, ...	Loader, ...	23	S.	Pittsburgh Terminal No. 4.		Arm broken by piece of coal from blast at face of working place.

CONDITION OF MINES

PITTSBURGH TERMINAL RAILROAD AND COAL COMPANY

Pittsburgh Terminal Nos. 1 and 2.—Ventilation, drainage and general condition, good.

Pittsburgh Terminal No. 3.—Ventilation good in some parts, but a little defective in other parts. Drainage, good.

Pittsburgh Terminal No. 4.—In very good condition.

Pittsburgh Terminal No. 6.—Ventilation, drainage and general condition have been very much improved.

Pittsburgh Terminal No. 7.—Ventilation good in some parts, but only fair in other parts. Drainage good.

PITTSBURGH COAL COMPANY

Fair Haven.—In very good condition.

First Pool Nos. 1 and 3.—Ventilation and drainage good.

First Pool No. 2.—Ventilation and drainage very good.

Idlewood.—Ventilation good in some portions, but only fair in other portions. Drainage good in some parts, but defective in other parts.

Lick Run.—Ventilation and drainage good. Mine was neat and clean.

Mansfield.—Ventilation good in some parts, but in other parts a little weak. To improve the ventilation a more powerful fan was being installed at a shaft near the solid workings. Drainage good. As a whole the mine was neat and clean.

Nottingham.—Ventilation good. Drainage good in some parts, but a little defective in other parts.

CRESCENT COAL COMPANY

Peters Creek No. 1.—Ventilation and drainage good.

Peters Creek No. 2.—Ventilation and drainage good. Mine was neat and clean.

Peters Creek No. 3.—Ventilation, drainage and general condition, good.

YOUGHIOGHENY AND OHIO COAL COMPANY

Thompson.—Ventilation and drainage good.

NEW YORK AND CLEVELAND GAS COAL COMPANY

Plum Creek.—Ventilation and drainage good. Mine was neat and clean.

Sandy Creek.—Ventilation and drainage, good.

PITTSBURGH-BUFFALO COMPANY

Bertha.—Ventilation good in some parts, but in other parts only fair. Drainage good in some parts, but a little defective in other parts.

MONONGAHELA RIVER CONSOLIDATED COAL AND COKE COMPANY

Becks Run.—Ventilation in some parts good, but in other parts only fair. Drainage good in some parts, but a little defective in other parts.

MANS WILLIAMS COAL COMPANY

Bulls Run.—Ventilation fair; drainage a little defective.

SORG BROTHERS

Sorg.—Ventilation fair; drainage a little defective.

WILLIAMS FUEL COMPANY

Leek Run.—General condition of ventilation and drainage, fair.

HARPERS COAL COMPANY

Harper.—Ventilation in some parts, good, but in other parts only fair. Drainage good, with some exceptions.

PAUL COAL COMPANY

Paul.—Ventilation and drainage good.

WEINMAN BROTHERS

Weinman.—Ventilation fair. Drainage good.

VOGEL AND WEINMAN

Hampton.—Ventilation good in some parts, but only fair in other parts. Drainage good.

SAMPSON AND HORMEL

Sampson.—Ventilation and drainage fair.

W. S. B. HAYS

Calhoun.—Ventilation fair. Drainage a little defective.

JAMES T. FOX

Fox.—Ventilation and drainage fair.

SHEARN BROTHERS

Shearn.—Ventilation good in some parts; in other parts, very weak. Drainage defective.

JOHN PETERMAN

Peterman.—Ventilation and drainage fair.

STEELE AND SCOTT

Ward.—Ventilation and drainage good.

IMPROVEMENTS

PITTSBURGH TERMINAL RAILROAD AND COAL COMPANY

Pittsburgh Terminal No. 2.—Installed three pumps, driven by electric motors, for drainage, and three electric short wall mining machines. Added 150 mine cars to equipment. Extended motor roads 1,200 feet.

Pittsburgh Terminal No. 3.—Installed one 12-ton electric locomotive, three 5-ton electric locomotives, one pump, driven by electric motor, for drainage, and added 50 mine cars to equipment. Extended motor road 8,400 feet.

Pittsburgh Terminal No. 4.—Installed ten electric short wall mining machines; three 5-ton electric locomotives; one 12-ton electric locomotive; one portable pump, driven by electric motor, for drainage. Added 400 mine cars to the equipment. Small steam engine driving carhaul of hoisting shaft replaced with a 15 H. P. electric motor; small steam engine driving carhaul on tipple replaced with a 25 H. P. electric motor. In the central power plant, located at the mine, two Sterling water tube boilers, 602 H. P. each, were installed to replace two Erie City return tubular boilers, 150 H. P. each.

Pittsburgh Terminal No. 6.—Installed one pump, driven by electric motor, for drainage. Water course made along air course between 19 and 20 butts left in Mine No. 6 and on No. 3 main butt in Mine No. 5 about 175 feet beyond No. 1 main face north in Mine No. 5, from which the water will gravitate to lodgment at No. 4 air shaft, and will then be elevated to the surface by means of air lifts. Extended motor roads 12,700 feet.

Pittsburgh Terminal No. 7.—Installed four 5-ton electric locomotives, one 12-ton electric locomotive and one pump, driven by electric motor, for drainage.

PITTSBURGH COAL COMPANY

Fair Haven.—Constructed 25 brick stoppings, two brick overcasts and thirty manholes. Installed 2,500 feet of 3-inch pipe and 500 feet of 2½-inch pipe for water line. Extended motor road 1,500 feet, laid with 40-pound rails and 5 by 6 by 5½ oak ties.

Outside: Laid 500 feet of graded track so loads can run to check house by gravity. Laid 500 feet of graded track so empty cars can run from check house to motor road by gravity.

Idlewood.—Constructed 38 brick stoppings; extended motor road 2,200 feet, laid with 40-pound rails; installed one 2-inch centrifugal pump; built one fan house and fan way.

Lick Run.—Installed one 8 by 10 Deming triplex pump. Constructed 62 brick stoppings, 4 overcasts, one 6-inch drill hole and casing. Extended motor road to parting 2,300 feet, laid with 40-pound steel rails and 5 by 6 by 5½ oak ties.

Mansfield.—Constructed 116 brick stoppings, seven brick overcasts, two brick pump houses, 12 brick and cement dams. Placed forty-four barrels in ribs at doors for fire protection. Twenty-three shelter holes made; forty-nine door jams built in with brick; two short wall mining machines installed; one sprinkling water car and 100 Wolf safety lamps added to equipment. Extended motor road 4,000 feet.

WILLIAMS FUEL COMPANY

Leek Run.—A new mine. Began operation July 15. Erected frame tipple, capacity 400 tons; made incline plane; built check house and installed checking apparatus; built blacksmith shop and mine foreman's office.

HARPERS COAL COMPANY

Harper.—A new opening. Began operation in February. Constructed one frame tipple; built stable for horses and mules. Opened up and timbered to drift openings.

February—Andrew Savage, Mansfield No. 2 mine, Pittsburgh Coal Company. Charge: Leaving his working place and going to another part of mine without the permission of the mine foreman, assistant mine foreman or fire boss. June 13. Hearing in court. Defendant acquitted and costs put on county.

February—Henry Heypleck, Mansfield No. 2 mine, Pittsburgh Coal Company. Charge: Leaving his working place and going to another part of mine without the permission of the mine foreman, assistant mine foreman or fire boss. June 13. Hearing in court. Defendant acquitted and costs put on county.

April 10—Patsey Vera, Idlewood mine, Pittsburgh Coal Company. Charge: Working under slate that was not sufficiently propped. Plead guilty and paid all costs.

PROSECUTIONS FOR VIOLATION OF THE MINING LAWS

MINE FOREMEN'S, ASSISTANT MINE FOREMEN'S AND FIRE BOSSES' EXAMINATIONS

The annual examination of applications for certificates of qualification as mine foremen, assistant mine foremen and fire bosses was held in Moorehead's Hall, Pittsburgh, May 6, 7 and 8.

The Board of Examiners was composed of John I. Pratt, Inspector; James Porter, Superintendent, and Robert H. Heath, Miner.

There were 25 applicants for certificates of qualification as mine foremen and assistant mine foremen, and 34 applicants for certificates of qualification as fire bosses. The following persons passed a satisfactory examination and were granted certificates:

MINE FOREMEN

First Grade

John T. Ryan, David J. Price, Pittsburgh; Joseph T. Clark, Loupurex; Peter G. Carroll, Rodfield; Ambrose Lees, Gastonville; Harvey J. Nelms, Castle Shannon; Lance Linsley, Willock.

ASSISTANT MINE FOREMEN

John T. Ryan, David J. Price, Pittsburgh; Harvey J. Nelms, Castle Shannon; Grover C. McClure, Hackett; Samuel D. Trimbath, Willock; Andrew Smith, Redman Mills; Frederick Bateman, Hays; Ernest Mathias, Gastonville; Robert Faulkner, Jr., Homestead; John Bradburn, Venetia.

FIRE BOSSES

Roland D. Cresswell, Simon Felton, Willock; Charles F. Lappla, John Henry Schweinsberg, Milton Bruce Curry, Rodfield; John Spark, John Hallas, Harry M. Black, Epton; Charles L. Bier, Edward Harig, Fair Haven; Daniel Bradley, August Franks, Mathew Laffey, Large; Elija R. E. Travis, Charles Bashor, George Henry Travis, Broughton; John T. Ryan, David J. Price, Pittsburgh; Benjamin L. Davis, Finleyville; Octdavis Lewis, Venetia; John C. Kletter, Carrick; James Johnson, Hackett; Andrew Smith, Redman Mills; John Kost, Carnegie.

EIGHTEENTH DISTRICT

CLEARFIELD, HUNTINGDON, BEDFORD, CENTRE AND CAMBRIA COUNTIES

Tyrone, Pa., February 17, 1914.

Hon. James E. Roderick, Chief of Department of Mines:

Sir: In compliance with the Bituminous Mining Law, I herewith transmit my annual report of the Eighteenth Bituminous District for the year ending December 31, 1913.

The report contains the usual statistical information and tables. There was an increase in the production of coal of 1,041,371 tons as compared with the year 1912.

Nothing of an unusual nature occurred during the year.

Respectfully submitted,

THOMAS A. MATHER,
Inspector.

SUMMARY OF STATISTICS

Number of mines,	98
Number of mines in operation,	95
Number of tons of coal shipped to market,	4,479,453
Number of tons used at mines for steam and heat,	78,648
Number of tons sold to local trade and used by employes,	31,178
Number of tons used in the manufacture of coke,	223,087
Number of tons of coal produced,	4,812,366
Number of tons of coke produced,	151,805
Number of coke ovens,	440
Number of coke ovens in operation,	440
Number of tons of coal produced by pick mining,	3,953,871
Number of tons produced by compressed air machines,	669,384
Number of tons produced by electrical machines,	189,111
Number of persons employed inside of mines,	5,765
Number of persons employed outside, including coke workers,	705
Number of persons employed at manufacture of coke,	119
Number of fatal accidents inside of mines,	11
Number of fatal accidents outside,	....
Number of non-fatal accidents inside of mines,	27
Number of non-fatal accidents outside,	1
Number of tons of coal produced per fatal accident inside,	437,488
Number of tons produced per fatal accident outside,	....
Number of tons produced per fatal accident inside and outside,	437,488
Number of persons employed per fatal accident inside,	524
Number of persons employed per fatal accident outside,	....
Number of persons employed per fatal accident inside and outside,	588
Number of persons employed per non-fatal accident inside,	213
Number of persons employed per non-fatal accident outside,	705
Number of persons employed per non-fatal accident inside and outside,	231
Number of wives made widows,	3
Number of children made orphans,	7
Number of steam locomotives used inside of mines,	....
Number of steam locomotives used outside,	2
Number of compressed air locomotives used inside,	....
Number of compressed air locomotives used outside,	....
Number of electric motors used inside,	20
Number of electric motors used outside,	....
Number of gasoline locomotives used inside,	....
Number of fans in use,	48
Number of furnaces in use,	37
Number of gaseous mines in operation,	....
Number of non-gaseous mines in operation,	95
Number of new mines opened,	1
Number of old mines abandoned,	2

TABLE A

PRODUCTION OF COAL

Names of Operators	Tons
Corona Coal and Coke Company and H. B. Swoope Company,	573,241
Rockhill Iron and Coal Company,	497,971
Berwind-White Coal Mining Company,	447,691
Joseph E. Thropp,	261,435
Carbon Coal and Coke Company,	234,633
Irvona Coal and Coke Company,	211,819
Bulah Shaft Coal Company,	177,029
James M. McIntyre and Company,	161,163
S. J. Mountz and Company,	152,169
Grampian Coal Mining Company,	149,782
Colonial Iron Company,	136,831
S. Hegarty's Sons,	108,940
John Langdon,	103,315
Thomas McGlynn,	90,467
Betz Coal Mining Company,	84,542
Madeira-Hill Coal Mining Company,	82,228
E. Eichelberger and Company,	74,988
Broad Top Coal and Mineral Company,	73,903
Leland Coal Mining Company,	71,189
W. A. Gould and Brother,	68,113
Blain Run Coal Company,	55,103
Huntingdon Coal Company,	53,859
DuShan Coal Mining Company,	53,738
W. R. Gallagher and Brother,	48,293
Clark Brothers Coal Mining Company,	45,201
Gatehouse and Shoff Coal Company,	45,000
Janesville Coal Company,	41,244
J. Blair Kennerly,	38,692
A. J. Black,	31,510
Schipper Brothers Coal Mining Company,	30,999
Bellfield Coal and Coke Company,	30,852
Henrietta Coal Company,	30,720
E. J. Walker and Company,	29,357
Centre Coal and Coke Company,	28,878
Rocky Ridge Coal Company,	28,842
Standard Moshannon Coal Company,	27,998
Shannon Coal Company,	27,595
Reed Colliery Company,	27,300
Vivian Coal and Coke Company,	26,735
Bulah Coal Company,	26,451
Louise Coal Company,	25,596
Fernwood Coal Company,	22,016
Anda Coal Company,	21,429
Kelley Brothers Coal Company,	21,357
Ramey Coal Company,	21,347

Atlantic Coal Mining Company,	21,091
Harbison Walker Refractories Company,	20,960
Leskie Coal Mining Company,	17,626
Henry Liveright,	16,295
Michael Burns,	15,036
Brisbin Coal Mining Company,	12,488
Lulu Coal Company,	12,194
Moshannon Coal Mining Company,	11,684
William Heil,	11,111
Neveling Coal Mining Company,	10,900
Saxton Coal Company,	10,598
Highland Coal Mining Company,	10,508
Cedar Hill Coal Mining Company,	8,307
Brown Brothers,	7,663
Lobb and Andrews,	6,896
Henry Myers,	6,237
Witchey and Griffith,	6,211
Black Oak Coal Company,	5,000
Total,	4,812,366

Production by Counties

Clearfield,	2,684,118
Huntingdon,	964,131
Bedford,	826,915
Centre,	239,035
Cambria,	98,167
Total,	4,812,366

TABLE B.—Fatal and non-fatal accidents inside and outside of mines: number of tons of coal produced per accident; number of persons employed; number employed per accident

Names of Operators	Fatal Accidents			Non-Fatal Accidents			Tons of coal produced per fatal accident inside	Tons of coal produced per non-fatal accident inside	Number of employes inside	Number of employes outside	Total number of employes	Number of employes inside per fatal accident	Number of employes outside per fatal accident	Number of employes inside per non-fatal accident	Number of employes outside per non-fatal accident
	Inside	Outside	Total	Inside	Outside	Total									
Corona Coal and Coke Co. and H. B. Swoope Co.,	......	......	......	4	......	4	....	143,310	525	57	582	....	....	131	....
Rockhill Iron and Coal Co.,	1	......	1	3	......	3	497,971	165,990	614	39	653	614	....	205	....
Berwind-White Coal Mining Co.,	3	......	3	3	......	3	149,230	149,230	429	75	504	143	....	143	....
Joseph E. Thropp,	......	......	......	3	......	3	....	87,145	256	107	363	....	....	85	....
Carbon Coal and Coke Co.,	2	......	2	......	......	......	117,316	....	341	20	361	170	....	....	....
Irvona Coal and Coke Co.,	......	......	......	2	......	2	....	105,909	191	54	245	....	....	95	....
Bulah Shaft Coal Co.,	1	......	1	......	......	......	177,029	....	180	20	200	180	....	....	....
S. J. Mountz and Co.,	2	......	2	......	......	......	76,084	....	150	8	158	75	....	....	....
Grampian Coal Mining Co.,	......	......	......	2	......	2	....	74,891	234	14	248	....	....	117	....
Colonial Iron Co.,	......	......	......	1	......	1	....	136,831	178	17	195	....	....	178	....
John Langdon,	......	......	......	1	......	1	....	107,315	133	13	146	....	....	133	....
Betz Coal Mining Co.,	......	......	......	1	......	1	....	84,542	82	11	93	....	....	82	....
E. Eichelberger and Co.,	......	......	......	1	......	1	....	74,988	98	8	106	....	....	98	....
Broad Top Coal and Mineral Co.,	......	......	......	1	......	1	....	73,903	86	13	99	....	....	86	....
W. A. Gould and Brother,	......	......	......	1	......	1	....	68,113	110	6	116	....	....	110	....
DuShan Coal Mining Co.,	......	......	......	1	......	1	....	53,738	71	4	75	....	....	71	....
W. R. Gallagher and Brother,	......	......	......	......	1	1	....	....	43	1	44	....	....	....	1
Gatehouse and Shoff Coal Co.,	......	......	......	1	......	1	....	45,000	46	3	49	....	....	46	....
Ramey Coal Co.,	......	......	......	1	......	1	....	21,347	43	1	44	....	....	43	....
Leskie Coal Mining Co.,	......	......	......	1	......	1	....	17,626	18	2	20	....	....	18	....
Brisbin Coal Mining Co.,	2	......	2	......	......	......	6,244	....	21	2	23	10	....	....	....
Miscellaneous Companies,	......	......	......	......	......	......	....	....	1,916	230	2,146	....	....	....	....
Totals and averages for district, ...	11	......	11	27	1	28	437,488	178,236	5,765	705	6,470	524	....	213	705

TABLE C.—Classification of Fatal Accidents Inside and Outside of Mines

	Months													
	January	February	March	April	May	June	July	August	September	October	November	December	Totals	Percentages
Causes of Accidents Inside														
Falls of coal,	....	1	....	....	....	....	....	....	....	2	....	....	3	27.27
Falls of slate,	1	....	....	1	....	....	....	....	....	....	1	....	3	27.27
Falls of roof,	....	1	....	....	....	....	....	....	....	....	....	....	1	9.09
Blasts, premature and otherwise,	....	....	....	....	....	....	....	....	....	....	....	1	1	9.09
Falling into shafts,	....	....	1	....	....	....	....	....	....	....	....	....	1	9.09
Electricity,	....	....	....	....	....	....	2	....	....	....	....	....	2	18.19
Totals,	1	2	1	1	....	....	2	....	....	2	1	1	11	100.00
Causes of Accidents Outside (No Accidents)														

TABLE D.—Classification of Non-Fatal Accidents Inside and Outside of Mines

	Months													
	January	February	March	April	May	June	July	August	September	October	November	December	Totals	Percentages
Causes of Accidents Inside														
Falls of coal,	....	....	....	....	1	....	1	1	1	1	....	1	6	22.22
Falls of slate,	1	1	....	....	1	....	....	....	2	1	....	1	7	25.93
Falls of roof,	....	....	....	....	1	....	2	....	....	....	1	....	4	14.81
Mine cars,	1	....	2	1	....	1	....	1	....	1	....	2	9	33.33
Struck by rope,	1	....	....	....	....	....	....	....	....	....	....	....	1	3.70
Totals,	3	1	2	1	3	1	3	2	3	3	1	4	27	100.00
Causes of Accidents Outside														
Cars,	....	....	....	1	....	....	....	....	....	....	....	....	1	100.00
Totals,	....	....	....	1	....	....	....	....	....	....	....	....	1	100.00
Grand totals inside and outside,	3	1	2	2	3	1	3	2	3	3	1	4	28	......

TABLE E.—Occupations of Persons Killed or Fatally Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
Inside													
Miners,	1	2	1	1	....	....	....	....	....	2	1	....	8
Company men,	....	....	....	....	....	....	2	....	....	....	....	....	2
Shift bosses,	....	....	....	....	....	....	....	....	....	....	....	1	1
Totals,	1	2	1	1	....	....	2	....	....	2	1	1	11
Outside (No Accidents)													

TABLE F.—Occupations of Persons Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
Inside													
Miners,	2	1	....	....	3	1	3	1	3	2	....	3	19
Machine runners,	....	....	....	....	....	....	....	....	....	....	1	....	1
Drivers and runners,	....	....	....	1	....	....	....	1	....	....	....	....	2
Doorboys and helpers,	....	....	1	....	....	....	....	....	....	....	....	....	1
Company men,	1	....	1	....	....	....	....	....	....	1	....	1	4
Totals,	3	1	2	1	3	1	3	2	3	3	1	4	27
Outside													
Drivers,	....	....	....	1	....	....	....	....	....	....	....	....	1
Totals,	....	....	....	1	....	....	....	....	....	....	....	....	1
Grand totals inside and outside,	3	1	2	2	3	1	3	2	3	3	1	4	28

TABLE G.—Nationality of Persons Killed or Fatally Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
American,	....	2	....	....	....	....	1	....	....	....	....	....	3
German,	....	....	....	....	....	....	....	....	....	1	....	....	1
Polish,	1	....	....	....	....	....	....	....	....	....	....	....	1
Hungarian,	....	....	....	1	....	....	....	....	....	....	....	....	1
Italian,	....	....	....	....	....	....	....	....	....	1	....	....	1
Slavonian,	....	....	....	....	....	....	....	....	....	....	....	1	1
Austrian,	....	....	1	....	....	....	....	....	....	....	....	....	1
Swedish,	....	....	....	....	....	....	1	....	....	....	....	....	1
Horwat,	....	....	....	....	....	....	....	....	....	....	1	....	1
Totals,	1	2	1	1	....	....	2	....	....	2	1	1	11

TABLE H.—Nationality of Persons Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
American,	....	....	2	1	1	....	1	1	1	....	....	3	10
English,	....	....	....	....	....	....	1	1	....	1	....	....	3
Polish,	....	....	....	....	1	....	1	....	....	....	....	1	3
Italian,	1	1	....	....	....	....	....	....	....	....	1	....	3
Slavonian,	1	....	....	....	1	1	....	....	2	2	....	....	7
French,	1	....	....	1	....	....	....	....	....	....	....	....	2
Totals,	3	1	2	2	3	1	3	2	3	3	1	4	28

TABLE I.—Operators and mines, kind of openings, type and size of fans, size of furnaces, volume of air produced by fan or furnace per minute, number of splits of air currents and number of persons employed inside

Names of Operators and Mines	Kind of opening	Gaseous or non-gaseous	Method of ventilation	Diameter of fan in feet and inches	Width of blades in feet and inches	Depth of blades in feet and inches	Number of revolutions per minute	Water gauge developed—in inches	Name of fan	Power used	Area of furnace bars in square feet	Number of splits of air currents	Number of cubic feet of air per minute entering the mine at inlet	Total number of cubic feet of air per minute circulating in all the splits	Number of cubic feet of air per minute passing out at outlet	Number of persons employed inside
Corona Coal and Coke Co. and H. B. Swoope Co.																
Bucher,	Drift, ..	Non-gas.	Fan, ...	12.0	4.3	3.0	70	1.0	Stine, ...	Steam, ...	..	3	30,000	12,300	30,600	78
Davis,			Fan, ...	12.0	5.0	4.0	150	1.2	Stine, ...	Electricity,	..	..	37,000	10,300	36,000	64
Corona,			Furnace, ..	......	......	......	......	......	....	....	48	..	11,300	6,100	11,500	55
Shoff-Hegarty,			Furnace, ..	......	......	......	......	......	....	....	60	2	25,800	7,800	26,000	61
Sylvania,			Fan, ...	12.0	4.5	3.0	90	1.4	Stine, ...	Steam, ...	..	3	32,000	18,500	32,700	194
Morgan Run,			Furnace, ..	......	......	......	......	......	....	....	48	..	11,200	7,100	11,500	73
Rockhill Iron and Coal Co.																
Robertsdale No. 1,	Slope, ...	Non-gas., .	Fan, ...	16.0	4.5	4.0	50	1.0	Brazil, ...	Steam, ...	..	..	12,400	7,050	12,600	55
Robertsdale Slope,	Slope, ...	Non-gas., .	†	......	......	......	......	......	....	....	..	4	52,500	33,000	53,000	319
Woodvale Shaft,	Shaft, ...	Non-gas., .	Fan, ...	14.0	5.0	5.0	120	2.3	Lepley, ...	Steam, ...	..	4	48,000	27,300	49,200	240
Berwind White Coal Mining Co.																
Eureka No. 16,	Drift, ...	Non-gas., .	Fan, ...	10.0	3.5	4.8	75	.7	Brazil, ...	Steam, ...	..	..	18,600	8,300	19,000	14
Eureka No. 22,	Drift, ...	Non-gas., .	Fan, ...	12.0	2.0	2.8	160	.8	Stine, ...	Steam, ...	..	2	30,000	12,000	28,000	49
Eureka No. 28,	Shaft, ...	Non-gas., .	Fan, ...	11.0	7.0	4.5	124	.9	Capell, ...	Steam, ...	..	8	32,000	43,000	34,000	287
Eureka No. 29,	Shaft, ...	Non-gas.. .	Fan, ...	11.0	6.6	2.8	70	.4	Capell, ...	Steam, ...	..	2	35,000	18,000	36,000	79
Joseph E. Thropp																
Kearney Slope,	Slope, ...	Non-gas., .	Fan, ...	12.0	3.3	3.0	90	.7	Guibal, ...	Steam, ...	..	..	16,800	8,800	17,000	77
Kearney Plane,	Drift, ...	Non-gas., .	Fan, ...	8.0	3.0	2.6	140	.4	Guibal, ...	Electricity,	..	..	9,600	3,700	10,000	22
Kearney Barnett No. 2,	Drift, ...	Non-gas., .	Natural, ..	......	......	......	......	......	....	....	..	..	4,300	2,600	4,400	17
Gordon,	Slope, ...	Non-gas., .	Fan, ...	12.0	3.5	3.0	100	.7	Guibal, ...	Steam, ...	..	2	23,500	14,500	24,000	102
Melrose Nos. 5 and 6,	Drift, ...	Non-gas., .	Natural, ..	......	......	......	......	......	....	....	..	..	7,200	4,100	7,500	38

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†Ventilated by fan at Woodvale shaft.

TABLE I.—Continued

Names of Operators and Mines	Kind of opening	Gaseous or non-gaseous	Method of ventilation	Diameter of fan in feet and inches	Width of blades in feet and inches	Depth of blades in feet and inches	Number of revolutions per minute	Water gauge developed—in inches	Name of fan	Power used	Area of furnace bars in square feet	Number of splits of air currents	Number of cubic feet of air per minute entering the mine at inlet	Total number of cubic feet of air per minute circulating in all the splits	Number of cubic feet of air per minute passing out at outlet	Number of persons employed inside
Carbon Coal and Coke Co.																
Cambria No. 3, ...	Shaft, ...	Non-gas., .	Fan, ...	15.0	3.0	3.0	100	1.5	Guibal, ...	Electricity,	..	2	25,000	16,300	25,750	134
Ocean No. 2, ...	Drift, ...	Non-gas., .	‡	......	......	......	......	......	....	....	..	..	22,500	14,000	23,200	47
Ocean No. 3,*	Drift, ...	Non-gas., .	*	......	......	......	......	......	....	....	..	..	12,600	7,300	13,000	50
Ocean No. 4,*	Drift, ...	Non-gas., .	*	......	......	......	......	......	....	....	..	..	12,000	6,300	12,300	54
Ocean No. 5, ...	Drift, ...	Non-gas., .	Fan, ...	5.0	1.5	1.5	300	1.4	Stine, ...	Gasoline, ...	..	..	22,400	11,200	23,000	26
Carbon No. 4, ...	Drift, ...	Non-gas., .	Fan, ...	10.0	3.0	1.6	100	1.5	Brazil, ...	Steam, ...	..	..	9,000	5,600	9,300	30
Irvona Coal and Coke Co.																
Irvona No. 5, ...	Drift, ...	Non-gas., .	2 Fans, ..	7.0 7.0	2.0 2.0	2.3 2.3	180 180	.5 .5	Stine, ...	Steam, ...	..	2	28,500	12,400	30,100	101
Irvona No. 10, ...	Slope, ...	Non-gas., .	Fan, ...	15.0	4.5	4.5	90	.9	Brazil, ...	Steam, ...	..	2	32,000	10,000	33,000	90
Bulah Shaft Coal Co.																
Bulah Shaft, ...	Shaft, ...	Non-gas., .	Fan, ...	10.0	3.0	4.0	240	.7	Stine, ...	Steam, ...	..	3	47,000	20,400	48,500	180
James M. McIntyre and Co.																
Shreeve Run, ...	Drift, ...	Non-gas., .	Fan, ...	12.0	4.0	3.0	65	.5	Brazil, ...	Steam, ...	..	4	31,500	21,000	32,300	163
S. J. Mountz and Co.																
Viola, ...	Slope, ...	Non-gas., .	Fan, ...	16.0	4.6	4.6	66	.3	Brazil, ...	Steam, ...	..	2	28,800	18,180	28,000	150
Grampian Coal Mining Co.																
Penn No. 4, ...	Drift, ...	Non-gas., .	Furnace, ..	......	......	......	......	......	....	....	54	..	10,000	6,000	10,500	44
Penn No. 5, ...	Drift, ...	Non-gas., .	Fan, ...	8.0	1.5	3.4	180	.9	Stine, ...	Electricity,	..	2	46,000	18,500	47,000	156
Decatur No. 11, ...	Drift, ...	Non-gas., .	Furnace, ..	......	......	......	......	......	....	....	30	..	12,000	4,500	12,200	34

‡Ventilated by fan at Ocean No. 5.
*Ventilated by fan at Carbon No. 4.

Colonial Iron Co.																
Judith,	Slope,	Non-gas.,	Fan,	15.0	4.0	3.0	70	1.2	Brazil,	Steam,	..	2	23,500	17,600	29,000	178
S. Hegarty's Sons																
Oakland No. 2,	Drift,	Non-gas.,	Furnace,	......	......	......	......	......	....	....	25	..	12,000	6,800	12,500	56
Oakland No. 3,	Drift,	Non-gas.,	Fan,	7.0	2.6	3.0	250	.5	Stine,	Steam,	..	2	22,000	10,400	22,500	81
John Langdon																
Glendale Nos. 1 and 2,	Drift,	Non-gas.,	Fan,	7.0	1.5	3.0	150	.4	Stine,	Steam,	..	..	6,800	3,600	7,000	31
Glendale No. 4,	Slope,	Non-gas.,	Fan,	12.0	4.0	3.0	80	.7	Brazil,	Steam,	..	..	11,200	5,400	11,400	31
Cambria No. 2,	Slope,	Non-gas.,	Fan,	12.0	4.0	3.0	100	.4	Brazil,	Steam,	..	..	14,300	3,300	12,200	71
Thomas McGlynn																
Yorkshire,	Slope,	Non-gas.,	Fan,	8.0	2.4	3.4	160	.75	Stine,	Steam,	..	2	14,000	11,300	14,500	84
Betz Coal Mining Co.																
Betz No. 2,	Drift,	Non-gas.,	Fan,	12.0	5.0	4.0	60	.3	Stine,	Steam,	..	2	18,000	9,700	18,600	82
Madeira-Hill Coal Mining Co.																
Elizabeth No. 1,	Drift,	Non-gas.,	Fan,	12.0	4.4	4.0	90	1.5	Brazil,	Steam,	..	2	22,000	12,300	23,500	95
E. Eichelberger and Co.																
Bacon No. 2,	Drift,	Non-gas.,	Fan,	7.0	1.5	1.5	180	.6	Stine,	Steam,	..	2	19,800	9,200	20,200	98
Broad Top Coal and Mineral Co.																
Jacobs,	Drift,	Non-gas.,	2 Fans,	7.0 7.5	4.0 4.0	2.0 2.0	200 250	.4 .5	Own make,	Steam, air,	..	2	18,500	12,000	19,000	86
Leland Coal Mining Co.																
Leland No. 1,	Drift,	Non-gas.,	Fan,	14.0	4.3	4.6	78	.7	Brazil,	Steam,	..	2	24,500	9,200	25,600	85
Leland No. 10,	Drift,	Non-gas.,	Furnace,	......	......	......	......	......	....	....	48	..	6,500	3,800	6,600	22
W. A. Gould and Brother																
Midvale No. 3,	Drift,	Non-gas.,	Furnace,	......	......	......	......	......	....	....	24	..	9,500	5,200	10,000	55
Midvale No. 4,	Drift,	Non-gas.,	Furnace,	......	......	......	......	......	....	....	30	..	10,000	4,800	10,000	31
Henderson No. 5,	Slope,	Non-gas.,	Fan,	7.0	2.0	3.0	150	.6	Stine,	Steam,	..	..	14,000	4,600	14,000	24
Blain Run Coal Co.																
Blain Run No. 1,	Drift,	Non-gas.,	Fan,	18.0	4.0	4.0	58	.3	Brazil,	Steam,	..	..	16,100	7,000	16,200	82
Huntingdon Coal Co.																
Delaware No. 1,	Slope,	Non-gas.,	Fan,	16.0	4.0	4.0	80	.6	Brazil,	Steam,	..	..	30,000	14,300	31,000	67
DuShan Coal Mining Co.																
DuShan No. 1,	Drift,	Non-gas.,	Furnace,	......	......	......	......	......	....	....	36	..	12,300	8,000	12,500	71
W. R. Gallagher and Brother																
Black Oak,	Drift,	Non-gas.,	Furnace,	......	......	......	......	......	....	....	25	..	10,500	6,200	10,800	43

TABLE I.—Continued

Names of Operators and Mines	Kind of opening	Gaseous or non-gaseous	Method of ventilation	Diameter of fan in feet and inches	Width of blades in feet and inches	Depth of blades in feet and inches	Number of revolutions per minute	Water gauge developed—in inches	Name of fan	Power used	Area of furnace bars in square feet	Number of splits of air currents	Number of cubic feet of air per minute entering the mine at inlet	Total number of cubic feet of air per minute circulating in all the splits	Number of cubic feet of air per minute passing out at outlet	Number of persons employed inside
Clark Brothers Coal Mining Co.																
Falcon No. 2, ...	Drift, ...	Non-gas., .	Fan, ...	7.0	2.0	2.5	240	.6	Stine, ...	Steam, ...	..	..	21,200	14,800	20,600	33
Falcon No. 3, ...	Drift, ...	Non-gas., .	Furnace, ..	......	......	......	......	......	....	....	36	..	6,500	4,600	6,800	28
Gatehouse and Shoff Coal Co.																
Port No. 1, ...	Drift, ...	Non-gas., .	Furnace, ..	......	......	......	......	......	....	....	30	..	10,400	5,800	10,600	46
Janesville Coal Co.																
Vulcan Shaft No. 1, ...	Shaft, ...	Non-gas., .	Fan, ...	7.0	2.3	2.3	230	.5	Stine, ...	Steam, ...	..	..	20,000	10,500	21,000	65
J. Blair Kennerly																
Beccaria No. 1, ...	Drift, ...	Non-gas., .	Furnace, ..	......	......	....	......	......	....	....	36	2	9,210	5,900	10,200	56
A. J. Black																
Black No. 1, ...	Drift, ...	Non-gas., .	Natural, ..	......	......	......	......	......	....	....	..	..	4,000	2,600	4,200	13
Black No. 3, ...	Drift, ...	Non-gas., .	Furnace, ..	......	......	......	......	......	....	....	40	..	10,000	4,300	10,200	33
Schipper Brothers Coal Mining Co.																
Ladysmith Nos. 2 and 5, ..	Drift, ...	Non-gas., .	Fan, ...	7.0	3.0	2.8	72	.4	Brazil, ...	Steam, ...	..	2	25,000	8,000	26,200	31
Ladysmith Nos. 3 and 4, ..	Drift, ...	Non-gas., .	Natural, ..	......	......	......	.....	......	....	....	..	..	7,500	6,200	8,000	29
Bellfield Coal and Coke																
Bend No. 5, ...	Drift, ...	Non-gas., .	Fan, ...	8.0	2.0	2.0	80	1.4	Brazil, ...	Gasoline, ...	..	2	14,000	6,700	14,500	50

Henrietta Coal Co. Henrietta No. 3, ...	Slope,.....	Non-gas., .	Fan, ...	16.0	4.5	5.0	55	.6	Brazil, ...	Steam,......	..	..	20,000	5,800	20,200	44
E. J. Walker and Co. Stanley No. 2, ...	Drift, ...	Non-gas., .	Fan, ...	7.0	1.6	3.0	168	.4	Stine, ...	Electricity,	..	..	21,560	10,230	22,000	40
Centre Coal and Coke Co. Weston, ...	Drift, ...	Non-gas., .	Fan, ...	7.0	2.0	2.8	200	.5	Stine, ...	Electricity,	..	..	14,300	8,300	15,000	40
Rocky Ridge Coal Co. Wrays Hill, ...	Drift, ...	Non-gas., .	Furnace,..	......	......	......	......	......	....	....	30	..	8,600	5,800	9,000	46
Standard Moshannon Coal Co. Standard No. 4, ...	Drift, ...	Non-gas., .	Fan, ...	6.0	2.0	2.5	350	.8	Stine, ...	Gasoline, ...	..	..	16,000	7,500	16,500	34
Shannon Coal Co. Martha Nos. 2 and 3, ...	Drift, ...	Non-gas., .	Furnace,..	......	......	......	......	......	....	....	32	2	11,000	7,200	11,400	39
Reed Colliery Co. Benedict, ...	Drift, ...	Non-gas., .	Furnace,..	......	......	......	......	......	....	....	40	..	10,000	5,400	10,000	47
Vivian Coal and Coke Co. Vivian No. 1, ...	Slope,.....	Non-gas., .	Fan, ...	12.0	3.0	3.0	72	.2	Brazil, ...	Steam,......	..	..	17,000	6,400	17,800	48
Bulah Coal Co. Webster No. 4, ...	Drift, ...	Non-gas., .	Fan, ...	7.0	3.0	3.0	275	.4	Stine, ...	Steam,......	..	..	15,000	6,300	16,000	30
Louise Coal Co. Rock Bar, ...	Slope,.....	Non-gas., .	Furnace,..	......	......	......	......	......	....	....	30	..	7,400	5,300	7,500	31
Fernwood Coal Co. Mt. Vernon No. 10, ...	Drift, ...	Non-gas., .	Furnace,..	......	......	......	......	......	....	....	30	..	7,125	4,000	8,000	25
Anda Coal Co. Mt. Branch, ...	Drift, ...	Non-gas., .	Furnace,..	......	......	......	......	......	....	....	24	..	7,500	4,700	7,600	35
Kelley Brothers Coal Co. Vulcan No. 1, ...	Drift, ...	Non-gas., .	Furnace,..	......	......	......	......	......	....	....	25	..	6,400	3,200	6,400	28
Ramey Coal Co. Ramey No. 1, ...	Drift, ...	Non-gas., .	Furnace,..	......	......	......	......	......	....	....	48	..	14,000	6,800	14,500	43
Atlantic Coal Mining Co. Atlantic, ...	Drift, ...	Non-gas., .	Furnace,..	......	......	......	......	......	....	....	36	..	7,500	4,000	8,000	32
Harbison Walker Refractories Co. Cambria No. 1, ...	Drift, ...	Non-gas., .	Furnace,..	......	......	......	......	......	....	....	25	..	12,150	4,600	12,300	21
Leskie Coal Mining Co. Leslie No. 1, ...	Drift, ...	Non-gas., .	Natural, ..	......	......	......	......	......	....	....	..	..	4,600	3,200	5,000	18

TABLE I.—Continued

Names of Operators and Mines	Kind of opening	Gaseous or non-gaseous	Method of ventilation	Diameter of fan in feet and inches	Width of blades in feet and inches	Depth of blades in feet and inches	Number of revolutions per minute	Water gauge developed—in inches	Name of fan	Power used	Area of furnace bars in square feet	Number of splits of air currents	Number of cubic feet of air per minute entering the mine at inlet	Total number of cubic feet of air per minute circulating in all the splits	Number of cubic feet of air per minute passing out at outlet	Number of persons employed inside
Henry Liveright Reliance, ...	Drift, ...	Non-gas., .	Furnace, ..	......	......	......	......	......	....	....	30	..	7,500	4,600	7,800	39
Michael Burns Penn No. 1, ...	Drift, ...	Non-gas., .	Natural, ..	......	......	......	......	......	....	....	..	..	6,000	4,500	6,000	21
Brisbin Coal Mining Co. Mascot No. 2, ...	Slope, ...	Non-gas., .	Fan, ...	5.0	1.6	1.6	200	.2	Stine, ...	Electricity,	..	..	12,000	4,600	12,100	21
Lulu Coal Co. Lulu No. 1, ...	Drift, ...	Non-gas., .	Furnace, ..	......	......	......	......	......	....	....	30	..	11,400	3,200	12,000	18
Moshannon Coal Mining Co. Lenore Nos. 1 and 2, ... Moshannon No. 4, ...	Drift, ... Drift, ...	Non-gas., . Non-gas., .	Furnace, .. Furnace, ..	....	....	....	....	....	....	....	25 20	.. ..	8,500 6,100	3,000 3,900	9,000 6,200	26 13
William Heil Mt. Verde No. 1, ...	Drift, ...	Non-gas., .	Furnace, ..	......	......	......	......	......	....	....	30	..	10,500	4,600	10,900	16
Neverling Coal Mining Co. Little Beaver No. 1, ...	Drift, ...	Non-gas., .	Furnace, ..	......	......	......	......	......	....	....	36	..	7,600	3,400	8,000	22
Saxton Coal Co. Kenmar Nos. 2 and 3, ...	Drift, ...	Non-gas., .	Natural, ..	......	......	......	......	......	....	....	..	..	6,000	2,800	6,100	16
Highland Coal Mining Co. Highland No. 4, ...	Drift, ...	Non-gas., .	Furnace, ..	......	......	......	......	......	....	....	27	..	5,460	3,200	5,700	18

Cedar Hill Coal Mining Co. Lenore Nos. 1 and 2,	Drift,	Non-gas.,	Furnace,	......	......	......	......	......	....	....	25	..	7,300	3,500	8,000	38
Brown Brothers Brown No. 1,	Drift,	Non-gas.,	Furnace,	......	......	......	......	......	....	....	25	..	7,000	2,800	7,000	16
Lobb and Andrews Eleanor No. 1,	Drift,	Non-gas.,	Natural,	......	......	......	......	......	....	....	..	..	5,000	3,000	5,100	28
Henry Myers Monroe,	Drift,	Non-gas.,	Furnace,	......	......	......	......	......	....	....	24	..	6,000	2,800	6,100	12
Witchey and Griffith Harrison,	Drift,	Non-gas.,	Furnace,	......	......	......	......	......	....	....	30	..	5,800	2,600	6,000	12
Black Oak Coal Co. Olympia,	Drift,	Non-gas.,	Furnace,	......	......	......	......	......	....	....	20	..	5,500	2,500	5,700	12

TABLE J.—Mines using coal cutting machines, power used, geological and local names of seams, thickest and thinnest seams where machines are used, and the approximate number of tons produced by machines

Names of Operators	Names of Mines	Kind of opening	Gaseous or non-gaseous	Number of mining machines used	Power used by machines	Geological and local names of seams	Average thickness in inches	Height of Seam in Inches		Approximate number of tons produced by machines
								Thickest	Thinnest	
Corona Coal and Coke Co. and H. B. Swoope Co.,	Davis,	Drift,	Non-gas.,	10	Compressed air,	B or Lower Kittanning.	54	56	53	65,395
	Sylvania,	Drift,	Non-gas.,	30	Compressed air,	B or Lower Kittanning.	54	60	48	161,755
Totals,				40						227,150
Berwind-White Coal Mining Co.,	Eureka No. 28,	Shaft,	Non-gas.,	25 1	Compressed air Electricity,	B or Lower Kittanning.	54	65	34	833,388 25,400
	Eureka No. 29,	Shaft,	Non-gas.,	4	Compressed air,	B or Lower Kittanning.	54	62	50	27,686
Totals,				30						886,474
Irvona Coal and Coke Co.,	Irvona No. 5,	Drift,	Non-gas.,	3	Electricity,	B or Lower Kittanning.	54	56	48	53,934
	Irvona No. 10,	Slope,	Non-gas.,	4	Electricity,	B or Lower Kittanning.	54	56	48	82,759
Totals,				7						136,693
Grampian Coal Mining Co.,	Penn No. 5,	Drift,	Non-gas.,	2	Electricity,	B or Lower Kittanning.	56	63	54	27,018

Betz Coal Mining Co., ...	Betz No. 2, ...	Drift, ...	Non-gas., .	3	Compressed air,	B or Lower Kittanning.	50	54	44	78,160
Madeira-Hill Coal Mining Co., ...	Elizabeth No. 1, ...	Drift, ...	Non-gas., .	2	Compressed air,	B or Lower Kittanning.	36	42	30	3,000
Grand totals, ...	....	....	....	89	....	....	......	......	......	858,495

TABLE 1.—Operators, Location of Mines, Railroads, etc.

Names of Operators and Mines	County	Name of General Superintendent	Post Office	Name of Superintendent	Post Office	Railroad to Mine
Corona Coal and Coke Co. and H. B. Swoope Co.						
Bucher,	Clearfield,	H. B. Swoope,	Madera,	John Stevenson,	Madera,	Pennsylvania
Davis,						Pennsylvania
Corona,						Pennsylvania
Shoff-Hegarty,						N. Y. C. and H. R.
Sylvania,						Pennsylvania
Morgan Run,						Pennsylvania
White Oak,*						Pennsylvania
Rockhill Iron and Coal Co.						
Robertsdale No. 1,	Huntingdon,	John S. Sommerville,	Robertsdale,	John S. Sommerville,	Robertsdale,	East Broad Top
Robertsdale Slope,						
Woodvale Shaft,						
Berwind-White Coal Mining Co.						
Eureka Nos. 16, 22, 28 and 29,	Clearfield,	Thomas Fisher,	Philadelphia, Commercial Trust Bldg.	William R. Cameron,	Houtzdale,	Pennsylvania
Joseph E. Thropp						
Kearney Slope,	Bedford,	R. H. Kay,	Saxton,	R. H. Kay,	Saxton,	H. and B. T. M.
Kearney Plane,	Bedford,					
Kearney Barnett No. 2,	Bedford,					
Gordon,	Huntingdon,					
Melrose Nos. 5 and 6,	Huntingdon,					
Carbon Coal and Coke Co.						
Cambria No. 3,	Bedford,	W. W. E. Shannon,	Saxton,	Daniel Ryan,	Dudley,	H. and B. T. M.
Ocean Nos. 2, 3, 4 and 5,	Huntingdon,					
Carbon No. 4,	Huntingdon,					
Irvona Coal and Coke Co.						
Irvona Nos. 5 and 10,	Clearfield,	A. Bathgate,	Coalport,	George Bathgate,	Coalport,	P. and N. W.
Bulah Shaft Coal Co.						
Bulah Shaft,	Clearfield,	James H. Minds,	Ramey,	James H. Minds,	Ramey,	Pennsylvania and P. and S. V.

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*Abandoned.

James M. McIntyre and Co. Shreeve Run,	Bedford,	James M. McIntyre,	Six Mile Run,	James M. McIntyre,	Six Mile Run,	H. and B. T. M.
S. J. Mountz and Co. Viola,	Clearfield,	S. J. Mountz,	Smith Mills,	S. J. Mountz,	Smith, Mills,	Pennsylvania
Grampian Coal Mining Co. Penn Nos. 4 and 5, Decatur No. 11,	Centre, Clearfield,	A. K. Wright,	Clearfield,			Pennsylvania P. and S. V.
Colonial Iron Co. Judith,	Bedford,	William Lauder,	Riddlesburg,	J. C. Allen,	Riddlesburg,	H. and B. T. M.
S. Hegarty's Sons Oakland Nos. 2 and 3,	Clearfield,	W. W. Hegarty,	Coalport,	W. W. Hegarty,	Coalport,	P. and N. W.
John Langdon Glendale Nos. 1, 2 and 4, Cambria No. 2,	Bedford,	Chester J. Langdon,	Hopewell,	Chester J. Langdon,	Hopewell,	H. and B. T. M.
Thomas McGlynn Yorkshire,	Clearfield,	Thomas McGlynn,	Madera,	Thomas McGlynn,	Madera,	Pennsylvania
Betz Coal Mining Co. Betz No. 2,	Clearfield,	Robert Lowrie,	Philadelphia,			Pennsylvania
Madeira-Hill Coal Mining Co. Elizabeth No. 1,	Clearfield,	W. R. Wilburn,	Philipsburg,	Samuel Gallagher,	Houtzdale,	Pennsylvania
E. Eichelberger and Co. Bacon No. 2,	Bedford,			W. E. Williams,	Six Mile Run,	H. and B. T. M.
Broad Top Coal and Mineral Co. Jacobs,	Huntingdon,	R. W. Jacobs,	Huntingdon,	John M. Starr,	Jacobs,	East Broad Top
Leland Coal Mining Co. Leland Nos. 1 and 10,	Clearfield,	Joseph J. McCann,	Utahville,			Pennsylvania
W. A. Gould and Brother Midvale No. 3, Midvale No. 4, Henderson No. 5,	Clearfield,	W. A. Gould,	Brisbin,	A. A. Packer, John Gould, George Charlton,	McCartney, Brisbin, Houtzdale,	Pennsylvania
Blain Run Coal Co. Blain Run No. 1,	Clearfield,	W. W. Helman, Sr.,	Coalport,	W. W. Helman, Jr.,	Coalport,	P. and N. W.
Huntingdon Coal Co. Delaware No. 1,	Bedford,			Daniel Everhart,	Six Mile Run,	H. and B. T. M.
DuShan Coal Mining Co. DuShan No. 1,	Centre,	H. G. Danneker,	Osceola Mills,			Pennsylvania

TABLE 1.—Continued

Names of Operators and Mines	County	Name of General Superintendent	Post Office	Name of Superintendent	Post Office	Railroad to Mine
W. R. Gallagher and Brother						
Black Oak,	Clearfield,	W. R. Gallagher,	Smith Mills,	W. R. Gallagher,	Smith Mills,	Pennsylvania
Clark Brothers Coal Mining Co.						
Falcon No. 2, Falcon No. 3,	Clearfield,	J. H. Miller,	Glen Campbell,	William George, Thomas Stoker,	Smoke Run,	Pennsylvania
Gatehouse and Shoff Coal Co.						
Port No. 1,	Clearfield,	J. C. Gatehouse,	Madera,	J. C. Gatehouse,	Madera,	N. Y. C. and H. R.
Janesville Coal Co.						
Vulcan Shaft No. 1,	Clearfield,	F. G. Betts,	Clearfield,	James P. Eddy,	Ramey,	Pennsylvania and P. and S. V.
J. Blair Kennerly						
Beccaria No. 1,	Cambria,	C. C. Dovey,	Johnstown,	H. L. Cannon,	Glasgow,	P. and N. W.
A. J. Black						
Black Nos. 1 and 3,	Huntingdon,	N. W. Black,	Broad Top,			H. and B. T. M.
Schipper Brothers Coal Mining Co.						
Ladysmith Nos. 2, 3, 4 and 5,	Bedford,	I. John Schipper,	Six Mile Run,	Frank Grimes,	Six Mile Run,	H. and B. T. M.
Bellfield Coal and Coke Co.						
Bend No. 5,	Cambria,	F. P. McFarland,	Altoona,	F. P. McFarland,	Altoona,	P. and N. W.
Henrietta Coal Co.						
Henrietta No. 5,	Clearfield,	Asa Spencer,	Houtzdale,			Pennsylvania
E. J. Walker and Co.						
Stanley Nos. 1* and 2,	Clearfield,			Willard Walker,	Brisbin,	Pennsylvania
Centre Coal and Coke Co.						
Weston,	Centre,	C. N. Rowland,	Philipsburg,	A. S. Brown,	Osceola Mills,	Pennsylvania

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*Abandoned.

Rocky Ridge Coal Co. Wrays Hill,	Huntingdon,	J. Ross Griffith,	Broad Top,	J. Ross Griffith,	Broad Top,	East Broad Top
Standard Moshannon Coal Co. Standard No. 4,	Clearfield,	Thomas Richardson,	Ramey,			Pennsylvania
Shannon Coal Co. Martha Nos. 2 and 3,	Huntingdon,	W. W. E. Shannon,	Saxton,	Daniel Ryan,	Dudley,	H. and B. T. M.
Reed Colliery Co. Benedict,	Huntingdon,	W. H. Reed,	Dudley,	W. H. Reed,	Dudley,	H. and B. T. M.
Vivian Coal and Coke Co. Vivian No. 1,	Clearfield,	C. C. Dovey,	Johnstown,	S. S. Seese,	Utahville,	P. and N. W.
Bulah Coal Co. Webster No. 4,	Clearfield,	J. H. Minds,	Ramey,	J. H. Minds,	Ramey,	Pennsylvania
Louise Coal Co. Rock Bar,	Bedford,	J. Ross Griffith,	Broad Top,	L. V. Mellott,	Hopewell,	H. and B. T. M.
Fernwood Coal Co. Mt. Vernon No. 10,	Clearfield,	M. J. Kelly,	Curwensville,	M. J. Kelly,	Curwensville,	P. and S. V.
Anda Coal Co. Mt. Branch,	Centre,	John B. McGrath,	Houtzdale,	John Johnson,	Houtzdale,	Pennsylvania
Kelley Brothers Coal Co. Vulcan No. 1,	Clearfield,	M. D. Kelley,	Snow Shoe,	James F. Kelley,	Houtzdale,	Pennsylvania
Ramey Coal Co. Ramey No. 1,	Clearfield,	F. F. Kramp,	Ramey,			P. and S. V.
Atlantic Coal Mining Co. Atlantic,	Clearfield,			A. Adam,	Houtzdale,	Pennsylvania and P. and S. V.
Harbison Walker Refractories Co. Cambria No. 1,	Cambria,	William McQuillen,	Woodland,	Alex. Munro,	Blandburg,	P. and N. W.
Leskie Coal Mining Co. Leskie No. 1,	Centre,	Thomas Dugan,	Osceola Mills,	Thomas Dugan,	Osceola Mills,	Pennsylvania
Henry Liveright Reliance,	Clearfield,	Henry Liveright,	Osceola Mills,	Aaron Crain,	Houtzdale,	Pennsylvania
Michael Burns Penn No. 1,	Clearfield,	Michael Burns,	Houtzdale,			Pennsylvania
Brisbin Coal Mining Co. Mascot No. 2,	Clearfield,	H. B. Scott,	Philipsburg,			Pennsylvania
Lulu Coal Co. Lulu No. 1,	Clearfield,	G. Pearson,	Houtzdale,	G. Pearson,	Houtzdale,	P. and S. V.

TABLE 1.—Continued

Names of Operators and Mines	County	Name of General Superintendent	Post Office	Name of Superintendent	Post Office	Railroad to Mine
Moshannon Coal Mining Co. Lenore Nos. 1 and 2, Moshannon No. 4,	Clearfield,	C. H. Rowland,	Philipsburg,	A. S. Brown,	Osceola Mills,	Pennsylvania
William Heil Mt. Verde No. 1,	Clearfield,	William Heil,	Rose Bud,	C. H. Heil,	Rose Bud,	P. and N. W.
Neveling Coal Mining Co. Little Beaver No. 1,	Clearfield,	R. F. Neveling,	Clearfield,	James King,	Brisbin,	P. and S. V.
Saxton Coal Co. Kenmar Nos. 2 and 3,	Bedford,			John McIntyre,	Six Mile Run,	H. and B. T. M.
Highland Coal Mining Co. Highland No. 4,	Bedford,	Archibald Bathgate,	Coalport,	Joseph Pardoe,	Six Mile Run,	H. and B. T. M.
Cedar Hill Coal Mining Co. Lenore Nos. 1 and 2,	Clearfield,			C. W. Isenberg,	Brisbin,	Pennsylvania
Brown Brothers Brown No. 1,	Cambria,			C. A. Brown,	Blandburg,	P. and N. W.
Lobb and Andrews Eleanor No. 1,	Clearfield,	Thomas Lobb, Sr.,	Brisbin,	Thomas Wynn,	Ramey,	Pennsylvania
Henry Myers Monroe,	Clearfield,			Henry Myers,	Osceola Mills,	P. and S. V.
Witchey and Griffiths Harrison,	Clearfield,			Frank Witchey,	Osceola Mills,	P. and S. V.
Black Oak Coal Co. Olympia,	Clearfield,	W. W. Lower,	Tyrone,	John Galbraith,	Osceola Mills,	Pennsylvania
Colonial Coal Mining Co. Dixie Nos. 1† and 2,†	Clearfield,					

†Idle.

TABLE 2.—Number of tons of coal mined and tons of coke produced, number of days worked, number of persons employed, number killed and injured, quantity of powder, dynamite and permissible explosives used, etc.

Names of Operators and Mines	County	Number of tons of coal shipped to market	Number of tons used at mines for steam and heat	Number of tons sold to local trade and used by employes	Number of tons used in manufacture of coke	Total production of coal in tons	Total production of coke in tons	Number of coke ovens	Number of days worked	Number of employes	Number of fatal accidents	Number of non-fatal accidents	Explosives: Number of pounds of powder used	Explosives: Number of pounds of dynamite used	Explosives: Number of pounds of permissible explosives used	Number of horses and mules
Corona Coal and Coke Co.																
H. B. Swoope and Co.,																
Bucher,	Clearfield,	60,383	1,894	712	....	62,989	....	......	284	84	....	....	....	....	....	16
Davis,		81,113	512	118	....	81,743	....	......	285	70	....	3	....	....	....	16
Corona,		53,056	618	916	....	54,585	....	......	277	59	....	....	....	....	....	12
Shoff-Hegarty,		69,220	817	984	....	71,021	....	......	305	67	....	....	....	....	....	12
Sylvania,		226,458	2,719	1,902	....	231,079	....	......	290	223	....	1	....	....	....	24
Morgan Run,		70,742	712	370	....	71,824	....	......	261	79	....	....	....	....	....	15
Totals,	....	560,972	7,267	5,002	....	573,241	....	......	......	582	....	4	....	....	....	95
Rockhill Iron and Coal Co.																
Robertsdale No. 1,	Huntingdon,	46,238	....	....	....	46,238	....	......	308	60	....	....	....	....	....	7
Robertsdale Slope,		296,264	4,554	1,210	....	302,028	....	......	304	337	1	1	....	....	....	50
Woodvale Shaft,		139,165	9,710	830	....	149,705	....	......	250	256	....	2	....	....	....	30
Totals,	....	481,667	14,264	2,040	....	497,971	....	......	......	653	1	3	....	....	....	87
Berwind-White Coal Mining Co.																
Eureka No. 16,	Clearfield,	15,040	96	53	....	15,189	....	......	257	18	....	....	675	....	....	7
Eureka No. 22,		44,104	1,812	112	....	46,028	....	......	293	56	1	....	4,900	....	....	....
Eureka No. 28,		346,132	12,203	453	....	358,788	....	......	301	322	1	2	25,300	....	....	31
Eureka No. 29,		27,357	329	....	....	27,686	....	......	309	108	1	1	17,625	2,350	....	6
Totals,	....	432,633	14,440	618	....	447,691	....	......	......	504	3	3	48,500	2,350	....	44

TABLE 2.—Continued

Names of Operators and Mines	County	Number of tons of coal shipped to market	Number of tons used at mines for steam and heat	Number of tons sold to local trade and used by employes	Number of tons used in manufacture of coke	Total production of coal in tons	Total production of coke in tons	Number of coke ovens	Number of days worked	Number of employes	Number of fatal accidents	Number of non-fatal accidents	Explosives			Number of horses and mules
													Number of pounds of powder used	Number of pounds of dynamite used	Number of pounds of permissible explosives used	
Joseph E. Thropp																
Kearney Slope, ...	Bedford, ...	458	6,347	382	80,981	88,168	49,614	170	281	146	....	2	41,000	670	....	17
Kearney Plane, ...	Bedford, ...	....	....	....	24,728	24,728	20,000	......	281	22	....	....	....	....	....	2
Kearney Barnett No. 2,	Bedford, ...	6,474	337	149	....	6,960	....	......	287	17	....	....	2,525	480	....	2
Gordon, ...	Huntingdon, ...	100,877	1,828	567	....	103,272	....	......	274	118	....	....	40,000	100	....	17
Melrose Nos. 5 and 6,...	Huntingdon, ...	7,253	17	....	31,037	88,307	20,691	90	259	60	....	1	20,000	300	....	6
Totals, ...	....	115,062	8,529	1,098	136,746	261,435	90,305	260	......	363	....	3	103,525	1,550	....	44
Carbon Coal and Coke Co.																
Cambria No. 3, ...	Bedford, ...	93,760	2,816	2,626	....	99,202	....	......	230	144	1	....	22,500	500	....	20
Ocean No. 2, ...	Huntingdon, ..	33,965	10	564	....	39,539	....	......	264	50	....	....	4,760	1,520	....	8
Ocean No. 3, ...		36,235	10	868	....	37,113	....	......	264	52	1	....	6,150	1,590	....	4
Ocean No. 4, ...		28,512	10	....	....	28,522	....	......	236	56	....	....	7,980	1,760	....	4
Ocean No. 5, ...		15,186	10	....	....	15,196	....	......	219	28	....	....	4,640	2,620	....	8
Carbon No. 4, ...		15,036	25	....	....	15,061	....	......	262	31	....	....	3,980	1,200	....	2
Totals, ...	....	227,694	2,881	4,058	....	234,633	....	......	......	361	2	....	50,010	9,190	....	41
Irvona Coal and Coke Co.																
Irvona No. 5, ...	Clearfield, ...	67,810	3,157	247	48,442	119,656	38,753	100	299	144	....	2	22,976	30	....	14
Irvona No. 10, ...		89,947	2,216	....	....	92,163	....	......	294	101	....	....	17,906	3,200	....	10
Totals, ...	....	157,757	5,373	247	48,442	211,819	38,753	100	......	245	....	2	40,882	2,230	....	24
Bulah Shaft Coal Co.																
Bulah Shaft, ...	Clearfield, ...	175,083	1,368	578	....	177,029	....	......	215	200	1	....	17,375	700	....	27

James M. McIntyre and Co.																
Shreeve Run, ...	Bedford, ...	160,350	75	738	....	161,163	....	......	270	187	....	....	38,000	2,350	....	16
S. J. Mounts and Co.																
Viola, ...	Clearfield, ...	151,569	240	360	....	152,169	....	......	273	158	2	....	....	....	....	18
Grampian Coal Mining Co.																
Penn No. 4, ...	Centre, ...	31,568	....	....	....	31,568	....	......	256	48	....	....	5,950	225	....	10
Penn No. 5, ...	Centre, ...	85,796	....	....	....	85,796	....	......	200	164	....	2	16,850	100	....	10
Decatur No. 11, ...	Clearfield, ...	32,418	....	....	....	32,418	....	......	269	36	....	....	11,200	25	....	5
Totals, ...	....	149,782	....	....	....	149,782	....	......	......	248	....	2	34,000	350	....	25
Colonial Iron Co.																
Judith, ...	Bedford, ...	132,176	3,003	1,652	....	136,831	....	......	265	195	....	1	20,000	350	....	16
S. Hegarty's Sons																
Oakland No. 2, ...	Clearfield, ...	38,826	490	25	....	39,341	....	......	265	62	....	....	5,750	720	....	6
Oakland No. 3, ...		67,973	1,601	25	....	69,599	....	......	267	92	....	....	9,750	150	....	5
Totals, ...	....	106,799	2,091	50	....	108,940	....	......	......	154	....	....	15,500	870	....	11
John Langdon																
Glendale Nos. 1 and 2,	Bedford, ...	19,198	159	339	....	19,696	....	......	241	34	....	....	8,025	550	200	3
Glendale No. 4, ...		21,138	917	195	....	22,250	....	......	267	34	....	....	3,500	1,300	300	5
Cambria No. 2, ...		60,252	396	721	....	61,369	....	......	256	78	....	1	2,500	50	....	10
Totals, ...	....	100,588	1,472	1,255	....	103,315	....	......	......	146	....	1	14,025	1,900	500	18
Thomas McGlynn																
Yorkshire, ...	Clearfield, ...	89,465	975	27	....	90,467	....	......	280	97	....	....	30,000	50	25	14
Betz Coal Mining Co.																
Betz No. 2, ...	Clearfield, ...	81,470	2,782	290	....	84,542	....	......	282	93	....	1	....	....	....	17
Madeira-Hill Coal Mining Co.																
Elizabeth No. 1, ...	Clearfield, ...	78,450	3,712	66	....	82,228	....	......	285	108	....	....	10,500	3,000	....	6
E. Eichelberger and Co.																
Bacon No. 2, ...	Bedford, ...	72,843	190	1,955	....	74,988	....	......	262	106	....	1	21,000	200	....	14
Broad Top Coal and Mineral Co.																
Jacobs, ...	Huntingdon, ...	72,583	572	748	....	73,903	....	......	306	99	....	1	1,800	100	....	10
Leland Coal Mining Co.,																
Leland No. 1, ...	Clearfield, ...	57,173	366	84	....	57,623	....	......	273	93	....	....	6,975	873	....	8
Leland No. 10, ...		13,520	46	....	....	13,566	....	......	291	23	....	....	2,100	350	....	4
Totals, ...	....	70,693	412	84	....	71,189	....	......	......	116	....	....	9,075	1,223	....	12

TABLE 2.—Continued

Names of Operators and Mines	County	Number of tons of coal shipped to market	Number of tons used at mines for steam and heat	Number of tons sold to local trade and used by employes	Number of tons used in manufacture of coke	Total production of coal in tons	Total production of coke in tons	Number of coke ovens	Number of days worked	Number of employes	Number of fatal accidents	Number of non-fatal accidents	Explosives			Number of horses and mules
													Number of pounds of powder used	Number of pounds of dynamite used	Number of pounds of permissible explosives used	
W. A. Gould and Brother																
Midvale No. 3, ...	Clearfield, ...	30,122	75	250	....	30,447	....	......	242	58	....	1	7,500	....	....	6
Midvale No. 4, ...		22,454	50	....	....	22,504	....	......	204	32	....	....	8,000	....	....	4
Henderson No. 5, ...		15,007	155	....	....	15,162	....	......	207	26	....	....	1,800	....	....	3
Totals, ...	....	67,583	280	250	....	68,113	....	......	......	116	....	1	17,300	....	....	13
Blain Run Coal Co.																
Blain Run No. 1, ...	Clearfield, ...	52,220	2,883	....	....	55,103	....	......	278	93	....	....	9,500	....	....	9
Huntingdon Coal Co.																
Delaware No. 1, ...	Bedford, ...	53,119	550	190	....	53,859	....	......	210	77	....	....	30,000	600	....	6
DuShan Coal Mining Co.																
DuShan No. 1, ...	Centre, ...	53,000	150	588	....	53,738	....	......	287	75	....	1	8,000	1,000	....	6
W. R. Gallagher and Brother																
Black Oak, ...	Clearfield, ...	48,143	....	150	....	48,293	....	......	280	44	....	1	9,200	....	....	6
Clark Brothers Coal Mining Co.																
Falcon No. 2, ...	Clearfield, ...	31,516	502	323	....	32,341	....	......	251	37	....	....	2,500	200	....	....
Falcon No. 3, ...		12,513	85	262	....	12,860	....	......	238	29	....	....	2,500	250	....	2
Totals, ...	....	44,029	587	585	....	45,201	....	......	......	66	....	....	5,000	450	....	2

Gatehouse and Shoff Coal Co. Port No. 1, ...	Clearfield, ...	44,920	....	80	....	45,000	....	......	259	49	....	1	10,000	....	....	6
Janesville Coal Co. Vulcan Shaft No. 1, ...	Clearfield, ...	39,634	1,589	21	....	41,244	....	......	277	72	....	....	8,900	300	....	4
J. Blair Kennerly Beccaria No. 1, ...	Cambria, ...	....	281	512	37,899	38,692	22,747	80	289	83	....	....	8,250	330	....	10
A. J. Black Black No. 1, ...	Huntingdon, ..	5,325	....	....	....	5,325	....	......	189	14	....	....	1,000	200	....	2
Black No. 3, ...		25,985	....	200	....	26,185	....	......	246	37	....	....	15,000	2,200	....	7
Totals, ...	....	31,310	....	200	....	31,510	....	......	......	51	....	....	16,000	2,400	....	9
Schipper Brothers Coal Mining Co. Ladysmith Nos. 2 and 5,	Bedford, ...	18,985	100	97	....	19,132	....	......	283	38	....	....	12,700	1,000	....	5
Ladysmith Nos. 3 and 4,		11,867	....	....	....	11,867	....	......	125	32	....	....	7,800	100	....	3
Totals, ...	....	30,802	100	97	....	30,999	....	......	......	70	....	....	20,500	1,100	....	8
Bellfield Coal and Coke Co. Bend No. 5, ...	Cambria, ...	30,852	....	....	....	30,852	....	......	288	54	....	....	9,000	50	....	5
Henrietta Coal Co. Henrietta No. 5, ...	Clearfield, ...	30,000	720	....	....	30,720	....	......	275	50	....	....	....	....	....	3
E. J. Walker and Co. Stanley No. 2, ...	Clearfield, ...	29,057	300	....	....	29,357	....	......	244	44	....	....	10,500	1,000	....	6
Centre Coal and Coke Co. Weston, ...	Centre, ...	28,683	195	....	....	28,878	....	......	280	46	....	....	....	....	....	6
Rocky Ridge Coal Co. Wrays Hill, ...	Huntingdon, ...	28,712	130	....	....	28,842	....	......	299	49	....	....	14,250	....	....	5
Standard Moshannon Coal Co. Standard No. 4, ...	Clearfield, ...	27,973	25	....	....	27,998	....	......	274	34	....	....	2,400	250	....	4
Shannon Coal Co. Martha Nos. 2 and 3,..	Huntingdon, ...	27,535	60	....	....	27,595	....	......	251	41	....	....	8,560	1,250	....	3
Reed Colliery Co. Benedict, ...	Huntingdon, ...	27,000	200	100	....	27,300	....	......	204	51	....	....	12,000	2,000	....	6
Vivian Coal and Coke Co. Vivian No. 1, ...	Clearfield, ...	26,266	463	6	....	26,735	....	......	256	53	....	....	4,171	822	....	2

TABLE 2.—Continued

Names of Operators and Mines	County	Number of tons of coal shipped to market	Number of tons used at mines for steam and heat	Number of tons sold to local trade and used by employes	Number of tons used in manufacture of coke	Total production of coal in tons	Total production of coke in tons	Number of coke ovens	Number of days worked	Number of employes	Number of fatal accidents	Number of non-fatal accidents	Explosives			Number of horses and mules
													Number of pounds of powder used	Number of pounds of dynamite used	Number of pounds of permissible explosives used	
Bulah Coal Co. Webster No. 4, ...	Clearfield, ...	25,720	275	456	....	26,451	....	......	202	41	....	....	4,350	200	....	4
Louise Coal Co. Rock Bar, ...	Bedford, ...	25,596	....	....	....	25,596	....	......	268	33	....	....	....	....	....	5
Fernwood Coal Co. Mt. Vernon No. 10, ...	Clearfield, ...	16,381	56	5,579	....	22,016	....	......	275	27	....	....	....	....	....	8
Anda Coal Co. Mt. Branch, ...	Centre, ...	21,429	....	....	....	21,429	....	......	196	38	....	....	5,350	100	....	4
Kelley Brothers Coal Co. Vulcan No. 1, ...	Clearfield, ...	21,280	....	77	....	21,357	....	......	288	30	....	....	2,000	50	....	3
Ramey Coal Co. Ramey No. 1, ...	Clearfield, ...	21,347	....	....	....	21,347	....	......	196	44	....	1	1,870	150	....	4
Atlantic Coal Mining Co. Atlantic, ...	Clearfield, ...	21,091	....	....	....	21,091	....	......	244	35	....	....	....	....	....	6
Harbison Walker Refractories Co. Cambria No. 1, ...	Cambria, ...	*20,960	....	....	....	20,960	....	......	310	23	....	....	18,325	40	....	8
Leskie Coal Mining Co. Leskie No. 1, ...	Centre, ...	17,626	....	....	....	17,626	....	......	270	20	....	1	....	....	....	5

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*Used in the manufacture of brick.

Henry Liveright Reliance, ...	Clearfield, ...	16,254	21	20	....	16,295	....	......	219	42	....	....	....	....	....	7
Michael Burns Penn No. 1, ...	Clearfield, ...	15,086	....	....	....	15,086	....	......	240	22	....	....	1,500	150	....	5
Brisbin Coal Mining Co. Mascot No. 2, ...	Clearfield, ...	12,488	....	....	....	12,488	....	......	243	23	2	....	....	....	....	1
Lulu Coal Co. Lulu No. 1, ...	Clearfield, ...	12,194	....	....	....	12,194	....	......	217	20	....	....	6,014	....	....	5
Moshannon Coal Mining Co. Lenore Nos. 1 and 2, ... Moshannon No. 4, ...	Clearfield, ...	4,711 5,740	....	545 688	....	5,256 6,428	....	....	84 262	28 13	....	....	....	....	....	4 1
Totals, ...	....	10,451	....	1,238	....	11,684	....	......	......	41	....	....	....	....	....	5
William Heil Mt. Verde No. 1, ...	Clearfield, ...	11,111	....	....	....	11,111	....	......	270	18	....	....	....	....	....	1
Neveling Coal Mining Co. Little Beaver No. 1, ..	Clearfield, ...	10,900	....	....	....	10,900	....	......	192	24	....	....	2,900	....	....	1
Saxton Coal Co. Kenmar Nos. 2 and 3,..	Bedford, ...	10,412	113	73	....	10,598	....	......	221	18	....	....	1,800	300	....	8
Highland Coal Mining Co. Highland No. 4, ...	Bedford, ...	10,484	....	24	....	10,508	....	......	98	20	....	....	7,500	1,000	....	5
Cedar Hill Coal Mining Co. Lenore Nos. 1 and 2,...	Clearfield, ...	8,307	....	....	....	8,307	....	......	156	40	....	....	....	....	....	5
Brown Brothers Brown No. 1, ...	Cambria, ...	7,653	....	10	....	7,663	....	......	254	16	....	....	600	....	....	2
Lobb and Andrews Eleanor No. 1, ...	Clearfield, ...	6,896	....	....	....	6,896	....	......	200	24	....	....	200	800	....	2
Henry Myers Monroe, ...	Clearfield, ...	6,177	24	36	....	6,237	....	......	194	12	....	....	1,270	....	....	1
Witchey and Griffith Harrison, ...	Clearfield, ...	6,186	....	25	....	6,211	....	......	296	12	....	....	1,650	200	....	1
Black Oak Coal Co. Olympia, ...	Clearfield, ...	5,000	....	....	....	5,000	....	......	203	14	....	....	600	100	....	2
Grand totals, ...	....	4,479,453	78,648	81,178	223,087	4,812,366	151,805	440	......	6,470	11	28	708,652	40,555	525	741

TABLE 2—Part 2

Names of Operators	County	Number of Boilers					Locomotives				Number of steam engines of all classes	Total horse power	Number of pumps delivering water to surface	Capacity in gallons per minute	Quantity delivered to surface per minute—gallons	Number of electric dynamos	Number of air compressors
		Cylindrical	Horse power	Tubular	Horse power	Total horse power	Gasoline	Steam	Air	Electric							
Corona Coal and Coke Co. and H. B. Swoope Co., ...	Clearfield, ...	......	......	5	650	650	....	....	....	....	......	....	12	....	....	......	3
Rockhill Iron and Coal Co.,..	Huntingdon, ...	......	......	9	1,490	1,490	....	....	....	....	9	990	9	6,500	2,000	......	2
Berwind-White Coal Mining Co., ...	Clearfield, ...	......	......	16	2,175	2,175	....	....	....	9	16	2,075	8	3,900	3,900	7	4
Joseph E. Thropp, ...	Bedford, ... Huntingdon, .	......	......	4	450	450	....	....	....	2	6	260	3	750	385	2	1
Carbon Coal and Coke Co., ..	Bedford, ... Huntingdon, .	......	......	4	340	340	....	....	....	1	3	225	1	250	200	1	......
Irvona Coal and Coke Co.,. ...	Clearfield, ...	......	......	6	590	590	....	....	....	3	7	525	4	455	455	3	......
Bulah Shaft Coal Co., ...	Clearfield, ...	......	......	2	200	200	....	....	....	....	2	225	2	600	400	......	......
James M. McIntyre and Co.,	Bedford, ...	......	......	1	24	24	....	....	....	....	1	24	....	....	....	......	......
S. J. Mountz and Co., ...	Clearfield, ...	......	......	1	100	100	....	....	....	....	2	100	....	....	....	......	......
Grampian Coal Mining Co.,..	Centre, ... Clearfield, ...	......	......	....	....	....	....	....	....	2	......	....	3	240	100	1	......
Colonial Iron Co., ...	Bedford, ...	......	......	2	160	160	....	1	....	....	2	150	1	300	200	......	1
S. Hegarty's Sons, ...	Clearfield, ...	......	......	2	120	120	....	....	....	....	2	120	2	800	600	......	......
John Langdon, ...	Bedford, ...	......	......	4	280	280	....	....	....	....	6	400	3	720	590	......	......
Thomas McGlynn, ...	Clearfield, ...	......	......	1	80	80	....	....	....	....	2	55	2	300	100	......	......
Betz Coal Mining Co., ...	Clearfield, ...	......	......	2	200	200	....	....	....	....	1	75	....	....	....	......	1
Madeira-Hill Coal Mining Co.,	Clearfield, ...	......	......	2	250	250	....	....	....	....	3	340	2	900	900	......	1
E. Eichelberger and Co., ...	Bedford, ...	......	......	1	10	10	....	....	....	....	1	10	1	80	....	......	......
Broad Top Coal and Mineral Co., ...	Huntingdon, ...	......	......	1	125	125	....	....	....	....	3	54	....	....	....	......	1
Leland Coal Mining Co., ...	Clearfield, ...	......	......	1	50	50	....	....	....	....	1	25	....	....	....	......	......
W. A. Gould and Brother, ..	Clearfield, ...	......	......	1	125	125	....	....	....	....	1	....	....	....	....	......	1
Blain Run Coal Co., ...	Clearfield, ...	......	......	2	200	200	....	....	....	....	4	100	2	1,350	900	......	1
Huntingdon Coal Co., ...	Bedford, ...	......	......	2	140	140	....	....	....	....	3	100	1	750	390	1	......

DuShan Coal Mining Co.,	Centre,	......	......	....	....	....	....	....	....	....	......	....	1	150	90	......	......
Clark Brothers Coal Mining Co.,	Clearfield,	......	......	2	160	160	....	....	....	1	2	95	2	50	50	1	......
Janesville Coal Co.,	Clearfield,	......	......	2	270	270	....	....	....	....	2	185	2	360	180	......	1
J. Blair Kennerly,	Cambria,	......	......	2	120	120	....	....	....	....	1	40	....	....	....	......	......
Schipper Brothers Coal Mining Co.,	Bedford,	......	......	1	80	80	....	....	....	....	1	....	....	....	....	......	......
Henrietta Coal Co.,	Clearfield,	1	100	1	125	225	....	....	....	....	2	100	1	600	200	......	......
E. J. Walker and Co.,	Clearfield,	......	......	1	25	25	....	1	....	....	1	80	4	700	200	......	......
Centre Coal and Coke Co.,	Centre,	......	......	....	....	....	....	....	....	1	......	....	....	....	....	1	......
Rocky Ridge Coal Co.,	Huntingdon,	......	......	1	35	35	....	....	....	....	1	35	1	60	30	......	......
Standard Moshannon Coal Co.,	Clearfield,	......	......	....	....	....	....	....	....	....	......	....	1	65	65	......	......
Vivian Coal and Coke Co.,	Clearfield,	1	50	1	60	110	....	....	....	....	2	75	1	200	50	......	......
Bulah Coal Co.,	Clearfield,	......	......	2	100	100	....	....	....	....	2	100	....	....	....	......	......
Louise Coal Co.,	Bedford,	......	......	....	....	....	....	....	....	....	......	....	1	100	30	......	......
Brisbin Coal Mining Co.,	Clearfield,	......	......	....	....	....	....	....	....	1	......	....	1	200	80	1	......
Saxton Coal Co.,	Bedford,	......	......	1	60	60	....	....	....	....	1	50	....	....	....	......	......
Totals,	....	2	150	83	8,794	8,944	....	2	....	20	90	6,613	71	20,380	12,095	18	17

TABLE 3.—Number of Each Class of Employes Inside and Outside of Mines

Names of Operators	County	Inside												Outside								Grand total inside and outside
		Mine foremen	Assistant mine foremen	Fire bosses	Miners	Machine runners	Machine loaders	Machine scrapers	Drivers and runners	Doorboys and helpers	Company men	All other employes	Total inside	Superintendents	Foremen	Blacksmiths and carpenters	Engineers and firemen	Coke employes	Bookkeepers and clerks	All other employes	Total outside	
Corona Coal and Coke Co. and H. B. Swoope Co., ...	Clearfield, ...	6	1	....	270	9	152	9	39	10	15	14	525	1	....	8	6	....	....	42	57	582
Rockhill Iron and Coal Co., ...	Huntingdon, ...	8	2	....	525	......	......	......	31	11	36	6	614	1	1	5	9	....	1	22	39	653
Berwind-White Coal Mining Co., ...	Clearfield, ...	4	2	....	55	9	252	9	20	1	14	63	429	....	....	8	16	....	5	46	75	504
Joseph E. Thropp, ...	Bedford, ... Huntingdon,	5	1	....	190	......	......	......	35	7	12	6	256	2	1	4	10	65	3	22	107	363
Carbon Coal and Coke Co., ...	Bedford, ... Huntingdon,	6	2	....	278	......	......	......	43	8	4	......	341	2	2	7	3	....	2	4	20	361
Irvona Coal and Coke Co., ...	Clearfield, ...	2	....	....	44	7	95	7	13	4	11	8	191	2	....	2	5	32	2	11	54	245
Bulah Shaft Coal Co.,	Clearfield, ...	1	1	....	166	......	......	......	5	....	7	......	180	1	....	3	3	....	1	12	20	200
James M. McIntyre and Co., ...	Bedford, ...	1	1	....	135	......	......	......	18	3	3	2	163	1	....	2	....	....	2	19	24	187
S. J. Mountz and Co.,	Clearfield, ...	1	1	....	130	......	......	......	8	....	10	......	150	1	....	1	1	....	1	4	8	158
Grampian Coal Mining Co., ...	Centre, ... Clearfield, ..	3	....	....	157	4	42	4	13	4	7	......	234	....	3	3	....	....	....	8	14	248
Colonial Iron Co., ...	Bedford, ...	1	1	....	150	......	......	......	16	4	6	......	178	1	....	3	4	....	1	8	17	195
S. Hegarty's Sons, ..	Clearfield, ...	2	....	....	124	......	......	......	9	....	2	......	137	2	2	2	2	....	2	7	17	154
John Langdon, ...	Bedford, ...	3	....	....	103	......	......	......	15	3	9	......	133	1	....	2	3	....	1	6	13	146
Thomas McGlynn, ...	Clearfield, ...	1	1	....	75	......	......	......	6	1	....	......	84	1	....	1	2	....	1	8	13	97
Betz Coal Mining Co.,	Clearfield, ...	1	....	....	......	6	58	6	8	....	3	......	82	....	....	2	2	....	....	7	11	93
Madeira-Hill Coal Mining Co., ...	Clearfield, ...	1	....	....	75	2	4	2	7	....	2	2	95	1	1	2	3	....	1	5	13	108
E. Eichelberger and Co., ...	Bedford, ...	1	....	....	79	......	......	......	8	2	7	1	98	1	....	3	1	....	1	2	8	106
Broad Top Coal and Mineral Co., ...	Huntingdon, ...	1	1	....	75	......	......	......	7	....	2	......	86	1	....	2	2	....	1	7	13	99

Leland Coal Mining Co.,	Clearfield,	2	....	....	95	......	......	......	4	2	4	......	107	1	2	2	....	....	1	3	9	116
W. A. Gould and Brother,	Clearfield,	3	....	....	97	......	......	......	7	....	3	......	110	....	3	1	2	....	....	....	6	116
Blain Run Coal Co.,	Clearfield,	1	1	....	70	......	......	......	7	1	2	......	82	2	....	1	3	....	1	4	11	93
Huntingdon Coal Co.,	Bedford,	1	1	....	56	......	......	......	7	1	1	......	67	....	1	2	2	....	1	4	10	77
DuShan Coal Mining Co.,	Centre,	1	1	....	60	......	......	......	5	2	2	......	71	1	....	....	....	....	1	2	4	75
W. R. Gallagher and Brother,	Clearfield,	1	....	....	38	......	......	......	3	....	1	......	43	1	....	....	....	....	....	....	1	44
Clark Brothers Coal Mining Co.,	Clearfield,	2	....	....	53	......	......	......	4	....	2	......	61	....	....	2	1	....	1	1	5	66
Gatehouse and Shoff Coal Co.,	Clearfield,	1	1	....	39	......	......	......	3	2	....	......	46	1	....	....	....	....	1	1	3	49
Janesville Coal Co.,	Clearfield,	1	1	....	58	......	......	......	3	....	2	......	65	1	....	1	3	....	....	2	7	72
J. Blair Kennerly,	Cambria,	1	....	....	47	......	......	......	7	....	1	......	56	1	....	1	1	22	....	2	27	83
A. J. Black,	Huntingdon,	2	....	....	38	......	......	......	4	1	1	......	46	1	....	1	....	....	1	2	5	51
Schipper Brothers Coal Mining Co.,	Bedford,	2	1	....	49	......	......	......	7	1	....	......	60	1	1	1	1	....	....	6	10	70
Bellfield Coal and Coke Co.,	Cambria,	1	....	....	45	......	......	......	2	....	1	1	50	1	....	1	....	....	1	1	4	54
Henrietta Coal Co.,	Clearfield,	1	....	....	39	......	......	......	2	1	1	......	44	....	1	1	2	....	....	2	6	50
E. J. Walker and Co.,	Clearfield,	1	....	....	35	......	......	......	4	....	....	......	40	1	....	....	2	....	1	....	4	44
Centre Coal and Coke Co.,	Centre,	1	....	....	33	......	......	......	3	1	2	......	40	....	....	1	....	....	....	5	6	46
Rocky Ridge Coal Co.,	Huntingdon,	1	....	....	40	......	......	......	4	....	....	1	46	....	....	....	1	....	....	2	3	49
Standard Moshannon Coal Co.,	Clearfield,	1	....	....	30	......	......	......	2	....	1	......	34	....	....	....	....	....	....	....	......	34
Shannon Coal Co.,	Huntingdon,	1	....	....	36	......	......	......	2	....	....	......	39	....	....	1	....	....	....	1	2	41
Reed Colliery Co.,	Huntingdon,	1	1	....	40	......	......	......	4	....	1	......	47	....	....	1	....	....	1	2	4	51
Vivian Coal and Coke Co.,	Clearfield,	1	....	....	42	......	......	......	2	....	2	1	48	....	....	1	2	....	....	2	5	53
Bulah Coal Co.,	Clearfield,	1	....	....	26	......	......	......	2	....	1	......	30	1	....	3	2	....	1	4	11	41
Louise Coal Co.,	Bedford,	1	....	....	26	......	......	......	3	....	1	......	31	....	....	....	1	....	....	1	2	33
Fernwood Coal Co.,	Clearfield,	1	....	....	23	......	......	......	1	....	....	......	25	1	....	....	....	....	1	....	2	27
Anda Coal Co.,	Centre,	1	....	....	31	......	......	......	3	....	....	......	35	1	....	....	....	....	1	1	3	38
Kelley Brothers Coal Co.,	Clearfield,	1	....	....	25	......	......	......	2	....	....	......	28	1	....	....	....	....	1	....	2	30
Ramey Coal Co.,	Clearfield,	1	....	....	40	......	......	......	2	....	....	......	43	....	....	....	....	....	1	....	1	44
Atlantic Coal Mining Co.,	Clearfield,	1	....	....	28	......	......	......	4	....	....	......	33	....	1	....	....	....	....	1	2	35
Harbison Walker Refractories Co.,	Cambria,	1	....	....	17	......	......	......	2	....	1	......	21	....	....	....	....	....	....	2	2	23
Leskie Coal Mining Co.,	Centre,	1	....	....	15	......	......	......	2	....	....	......	18	1	....	....	....	....	....	1	2	20
Henry Liveright,	Clearfield,	1	....	....	34	......	......	......	3	....	1	......	39	....	....	1	....	....	....	2	3	42
Michael Burns,	Clearfield,	1	....	....	17	......	......	......	2	....	1	......	21	....	....	....	....	....	1	....	1	22
Brisbin Coal Mining Co.,	Clearfield,	1	....	....	17	......	......	......	2	....	1	......	21	....	....	....	....	....	....	2	2	23
Lulu Coal Co.,	Clearfield,	1	....	....	15	......	......	......	2	....	....	......	18	1	....	....	....	....	1	....	2	20
Moshannon Coal Mining Co.,	Clearfield,	2	....	....	33	......	......	......	3	....	1	......	39	....	....	....	....	....	1	1	2	41
William Heil,	Clearfield,	1	....	....	13	......	......	......	1	....	1	......	16	1	....	....	....	....	....	1	2	18
Neveling Coal Mining Co.,	Clearfield,	1	....	....	20	......	......	......	1	....	....	......	22	1	....	1	....	....	....	....	2	24

TABLE 3.—Continued

Names of Operators	County	Inside												Outside								
		Mine foremen	Assistant mine foremen	Fire bosses	Miners	Machine runners	Machine loaders	Machine scrapers	Drivers and runners	Doorboys and helpers	Company men	All other employes	Total inside	Superintendents	Foremen	Blacksmiths and carpenters	Engineers and firemen	Coke employes	Bookkeepers and clerks	All other employes	Total outside	Grand total inside and outside
Saxton Coal Co., ...	Bedford, ...	1	....	....	13	......	......	......	2	....	....	....	16	....	....	1	1	....	....	....	2	18
Highland Coal Mining Co., ...	Bedford, ...	1	....	....	15	......	......	......	2	....	....	....	18	....	....	1	....	....	....	1	2	20
Cedar Hill Coal Mining Co., ...	Clearfield, ...	1	....	....	34	......	......	......	2	....	1	.....	38	1	....	....	....	....	....	1	2	40
Brown Brothers, ...	Cambria, ...	1	....	....	14	......	......	......	1	....	....	.....	16	....	....	....	....	....	....	....	......	16
Lobb and Andrews, ..	Clearfield, ...	1	....	....	20	......	......	......	1	....	1	.....	23	1	....	....	....	....	....	....	1	24
Henry Myers, ...	Clearfield, ...	1	....	....	10	......	......	......	1	....	....	.....	12	....	....	....	....	....	....	....	......	12
Witchey and Griffith,	Clearfield, ...	1	....	....	11	......	......	......	......	....	....	.....	12	....	....	....	....	....	....	....	......	12
Black Oak Coal Co.,..	Clearfield, ...	1	....	....	9	......	......	......	1	....	1	.....	12	....	....	....	....	....	1	1	2	14
Totals, ...	....	95	21	....	4,177	37	603	37	432	70	188	105	5,765	41	19	85	96	119	44	301	705	6,470

TABLE 3.—Part 2

Names of Operators	County	Average Number of Days Worked												
		January	February	March	April	May	June	July	August	September	October	November	December	Total
Corona Coal and Coke Co. and H. B. Swoope Co.,	Clearfield,	27	24	26	16	22	25	25	26	25	27	22	19	284
Rockhill Iron and Coal Co.,	Huntingdon,	27	24	25	24	17	18	24	26	25	27	24	25	286
Berwind-White Coal Mining Co.,	Clearfield,	26	24	26	25	25	24	25	25	25	25	21	19	290
Joseph E. Thropp,	Huntingdon, Bedford,	19	23	25	25	25	24	23	24	25	23	22	18	276
Carbon Coal and Coke Co.,	Huntingdon, Bedford,	25	22	22	16	18	18	19	19	22	23	20	22	246
Irvona Coal and Coke Co.,	Clearfield.	26	24	26	24	26	24	27	20	24	27	22	26	296
Bulah Shaft Coal Co.,	Clearfield.	20	20	16	11	14	10	21	22	20	20	20	21	215
James M. McIntyre and Co.,	Bedford,	27	20	20	17	16	16	24	26	26	27	25	26	270
S. J. Mountz and Co.,	Clearfield,	22	23	23	21	23	23	23	26	24	24	21	20	278
Grampian Coal Mining Co.,	Centre, Clearfield,	22	23	22	17	18	15	17	20	24	25	22	21	241
Colonial Iron Co.,	Bedford,	26	22	22	21	23	12	12	26	24	27	24	26	265
S. Hegarty's Sons,	Clearfield,	24	25	26	19	22	19	24	22	22	23	18	22	266
John Langdon,	Bedford,	25	23	16	13	19	25	25	26	25	20	18	20	255
Thomas McGlynn,	Clearfield,	26	23	22	15	23	25	25	25	24	27	24	21	280
Betz Coal Mining Co.,	Clearfield,	27	24	26	13	18	25	25	25	25	27	23	24	282
Madeira-Hill Coal Mining Co.,	Clearfield,	24	22	25	21	20	25	25	26	25	27	22	23	285
E. Eichelberger and Co.,	Bedford,	27	23	13	13	18	22	25	26	23	26	24	22	262
Broad Top Coal and Mineral Co.,	Huntingdon,	27	24	26	26	25	25	25	26	26	27	23	26	306
Leland Coal Mining Co.,	Clearfield,	23	24	24	23	23	25	23	25	24	25	22	21	282
W. A. Gould and Brother,	Clearfield,	22	20	21	20	14	14	7	17	20	22	21	20	218
Blain Run Coal Co.,	Clearfield,	24	21	25	22	25	23	26	24	21	21	23	23	278
Huntingdon Coal Co.,	Bedford,	27	24	17	......	7	19	23	10	10	26	22	25	210
DuShan Coal Mining Co.,	Centre,	22	22	24	24	25	23	24	28	25	25	24	23	287
W. R. Gallagher and Brother,	Clearfield,	21	25	25	12	26	23	26	24	24	26	24	25	280
Clark Brothers Coal Mining Co.,	Clearfield,	20	22	22	16	16	22	20	20	22	24	21	19	244
Gatehouse and Shoff Coal Co.,	Clearfield,	27	23	22	11	15	25	24	19	24	27	22	20	259
Janesville Coal Co.,	Clearfield,	23	21	15	25	25	24	23	25	25	23	25	23	277
J. Blair Kennerly,	Cambria,	26	24	26	26	26	25	24	25	26	24	20	17	289
A. J. Black,	Huntingdon,	22	22	22	16	15	8	4	18	22	24	24	25	217
Schipper Brothers Coal Mining Co.,	Bedford,	25	18	15	11	12	12	12	13	14	23	24	25	204
Bellfield Coal and Coke Co.,	Cambria,	25	24	23	25	27	25	24	22	23	24	22	24	288
Henrietta Coal Co.,	Clearfield,	26	23	22	18	26	22	24	24	19	27	20	24	275
E. J. Walker and Co.,	Clearfield,	22	18	22	23	22	24	21	23	20	22	12	16	244
Centre Coal and Coke Co.,	Centre,	25	24	22	15	24	24	24	26	24	26	24	22	280
Rocky Ridge Coal Co.,	Huntingdon,	26	23	24	25	24	25	24	26	24	27	25	26	299

TABLE 3.—Part 2—Continued

Names of Operators	County	Average Number of Days Worked												
		January	February	March	April	May	June	July	August	September	October	November	December	Total
Standard Moshannon Coal Co.,	Clearfield,	25	24	25	25	24	24	20	14	25	26	22	20	274
Shannon Coal Co.,	Huntingdon,	26	23	19	18	19	17	16	21	24	25	21	22	251
Reed Colliery Co.,	Huntingdon,	26	17	14	11	11	13	14	19	22	25	16	16	204
Vivian Coal and Coke Co.,	Clearfield,	26	24	26	23	25	23	25	24	9	21	20	10	256
Bulah Coal Co.,	Clearfield,	21	19	19	16	19	20	20	21	19	18	5	5	202
Louise Coal Co.,	Bedford,	25	23	20	15	25	25	18	24	25	27	19	22	268
Fernwood Coal Co.,	Clearfield,	10	19	26	24	25	25	25	25	25	26	24	21	275
Anda Coal Co.,	Centre,	20	24	8	3	5	10	13	20	25	23	24	21	196
Kelley Brothers Coal Co.,	Clearfield,	23	23	26	25	25	25	26	26	23	22	23	21	288
Ramey Coal Co.,	Clearfield,	23	20	16	......	....	......	25	26	19	21	24	22	196
Atlantic Coal Mining Co.,	Clearfield,	26	22	20	18	24	20	20	18	19	20	18	19	244
Harbison Walker Refractories Co.,	Cambria,	27	24	26	26	26	25	26	27	26	27	24	26	310
Leskie Coal Mining Co.,	Centre,	24	24	20	3	20	24	26	26	26	27	25	25	270
Henry Liveright,	Clearfield,	12	18	20	10	2	22	23	23	28	24	21	21	219
Michael Burns,	Clearfield,	20	20	20	20	20	20	20	20	20	20	20	20	240
Brisbin Coal Mining Co.,	Clearfield,	23	20	22	20	14	12	16	23	21	23	24	25	248
Lulu Coal Co.,	Clearfield,	25	......	15	10	20	15	24	25	24	25	16	18	217
Moshannon Coal Mining Co.,	Clearfield,	26	24	19	18	2	12	11	13	12	13	12	11	173
William Heil,	Clearfield,	23	19	23	21	22	20	25	23	21	24	24	25	270
Neveling Coal Mining Co.,	Clearfield,	......	......	......	19	24	9	18	23	24	26	24	25	192
Saxton Coal Co.,	Bedford,	23	21	10	22	20	18	23	8	10	20	23	23	221
Highland Coal Mining Co.,	Bedford,	24	20	......	......	......	......	.....	......	5	10	19	20	98
Cedar Hill Coal Mining Co.,	Clearfield,	......	......	......	......	5	8	18	26	25	27	22	25	156
Brown Brothers,	Cambria,	23	23	16	11	17	21	22	24	23	24	24	26	254
Lobb and Andrews,	Clearfield,	17	20	5	......	15	16	17	20	22	24	24	20	200
Henry Myers,	Clearfield,	26	18	2	......	......	24	23	21	16	22	20	22	194
Witchey and Griffith,	Clearfield,	25	23	26	25	24	25	23	25	24	26	26	24	296
Black Oak Coal Co.,	Clearfield,	......	......	20	22	20	23	20	22	24	22	20	10	203

TABLE 4.—Fatal Accidents Inside and Outside of Mines

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Number of widows	Number of orphans	Name of Mine	County	Nature and Cause of Accident in Brief
Jan. 15	Louie Wadeka,	Polish,	Miner,	22	S.	....	....	Cambria No. 3,	Bedford,	Instantly killed by fall of slate while undermining at face of room. Place was well timbered with props to within four feet of face of coal.
Feb. 11	Harry Bradley,	American,	Miner,	38	S.	....	....	Ocean No. 3,	Huntingdon,	Fatally injured. Spine fractured by fall of roof while undermining at face of room. Place was well timbered. Died two months later.
22	Samuel Barratt,	American,	Miner,	19	S.	....	....	Viola,	Clearfield,	Instantly killed by fall of coal while undermining at face of room. Coal had been loosened by a blast and should have been taken down before undercutting was begun.
March 1	Andrew Krichevich,	Austrian,	Miner,	19	S.	....	....	Eureka No. 28,	Clearfield,	Instantly killed by falling off cage while being hoisted up the shaft.
April 9	Steve Polinski,	Hungarian,	Miner,	24	S.	....	....	Robertsdale Slope	Huntingdon,	Instantly killed by fall of slate at face of main west entry. He had been at work only about ten minutes and was cleaning off coal from a shot that had been fired the evening before when the roof fell. He had examined the roof before beginning to work.
July 8	Alfred W. Moburg,	Swedish,	Company man	52	M	1	2	Mascot No. 2,	Clearfield,	Instantly killed on the parallel to the main entry, about fifty feet below the first left entry, by coming in contact with a live electric wire, 220 volts. The accident was due to a defective transformer that permitted a much higher voltage on the line entering the mine than was ordinarily carried.

TABLE 4—Continued

Date of accident		Name of Person	Nationality	Occupation	Age	Married or single	Number of widows	Number of orphans	Name of Mine	County	Nature and Cause of Accident in Brief
July	8	James Beattie, ...	American, ..	Company man	17	S.	....	....	Mascot No. 2, ..	Clearfield, ...	Instantly killed by coming in contact with an electric wire on first left entry. He had gone into the mine to search for Alfred W. Moburg, who had entered the mine about one hour earlier for the purpose of starting an electric pump. On coming to a point where the electric wires cross the first left entry he must have reached up and caught hold of the wire. Due to defective transformer.
Oct.	1	Samuel Walk, ...	German, ...	Miner, ...	32	M.	1	4	Bulah Shaft, ...	Clearfield, ...	Instantly killed by fall of coal while undermining in cross-cut near face of room. The undercutting ran back to a false slip in the coal.
	25	Maceo Dilligoose, ...	Italian, ...	Miner, ...	32	S.	....	....	Viola, ...	Clearfield, ...	Instantly killed by fall of coal while undermining at face of ninth left airway. The face of the coal had been shattered by a shot and the loose coal should have been taken down before the undercutting was begun. He also neglected to sprag the coal.
Nov.	26	Steve Tishock, ...	Horwat, ...	Miner, ...	31	S.	....	....	Eureka No. 22,..	Clearfield, ...	Instantly killed by fall of slate (horse back), while shoveling coal back from face of pillar to mine car. The place was well timbered.
Dec.	6	Mike Wallace, ...	Slavonian,..	Shift boss,..	28	M.	1	1	Eureka No. 29,..	Clearfield, ...	Instantly killed by blast at face of south tunnel. He knew the blast was to be fired and why he went to the tunnel is not known.

TABLE 5.—Non-Fatal Accidents Inside and Outside of Mines

Date of accident		Name of Person	Nationality	Occupation	Age	Married or single	Name of Mine	County	Nature and Cause of Accident in Brief
Jan.	18	Cam Tubolt,	French,	Company man,	30	M.	Davis,	Clearfield,	Fracture of pelvic bone. Caught between mine car and timbers near drift mouth.
	21	John Babjas,	Slavonian,	Miner,	22	S.	DuShan No. 1,	Centre,	Shoulder crushed by fall of slate while undermining coal at face of room.
	25	S. Territo,	Italian,	Miner,	20	S.	Woodvale Shaft,	Huntingdon,	Leg broken by haulage rope on haulage road.
Feb.	27	Eli Fashion,	Italian,	Miner,	27	S.	Robertsdale Slope,	Huntingdon,	Leg broken by fall of slate at face of room while propping roof.
March	28	Vaughn Neveling,	American,	Company man,	24	M.	Eureka No. 29,	Clearfield,	Pelvic bone fractured. Caught between mine car and prop on roadway of room.
	31	Burton Maines,	American,	Doorboy,	17	S.	Penn No. 5,	Centre,	Leg crushed while trying to jump off motor on haulage road.
April	22	John Gallagher,	American,	Driver,	34	S.	Black Oak,	Clearfield,	Jaw bone and two ribs broken on tipple. While unhitching team from trip the trace became loose and threw him against the moving trip. Outside.
	24	Ephrim McGurpe,	French,	Driver,	32	S.	Eureka No. 28,	Clearfield,	Bone in foot fractured by car on entry at mouth of room.
May	1	Andrew Cutcher,	Slavonian,	Miner,	57	M.	Midvale No. 3,	Clearfield,	Leg broken by fall of coal while shearing coal at face of room.
	3	Stana Mielnich,	Polish,	Miner,	42	M.	Melrose Nos. 5 and 6,	Huntingdon,	Leg broken by fall of roof while undermining coal at face of room.
	29	Edward Bratton,	American,	Miner,	29	S	Kearney Slope,	Bedford,	Collar bone broken by fall of slate at face of entry.
June	17	Mike Cuchta,	Slavonian,	Miner,	16	S.	Davis,	Clearfield,	Collar and breast bone broken while riding on rear car of loaded trip on haulage road. Mule stopped on grade and allowed cars to run back on him.
July	8	Joseph Kismark,	Polish,	Miner,	58	M.	Leskie,	Centre,	Collar bone broken by fall of coal while cutting across face of pillar.
	13	William Sheeder,	American,	Miner,	26	M.	Woodvale Shaft,	Huntingdon,	Leg and arm broken by fall of roof (horse back), while taking off piece of coal at corner of room neck for switch.
	26	Harry Jasper,	English,	Miner,	58	M.	Irvona No. 5,	Clearfield,	Leg broken by fall of roof while walking along haulage road.

TABLE 5—Continued

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Name of Mine	County	Nature and Cause of Accident in Brief
Aug. 4	Thomas Smith,	American,	Miner,	46	M.	Cambria No. 2,	Bedford,	Leg broken by fall of coal while undermining at face of room.
16	Steve Harris,	English,	Driver,	45	M.	Betz No. 2,	Clearfield,	Leg broken. Caught between cars on haulage road.
Sept. 9	Wasco Canmioll,	Slavonian,	Miner,	47	S.	Eureka No. 28,	Clearfield,	Collar bone and two ribs broken by fall of coal while undermining at face of room.
10	George Philips,	American,	Miner,	24	M.	Ramey No. 1,	Clearfield,	Leg broken by fall of slate while undermining at face of room.
30	John Roman,	Slavonian,	Miner,	42	M.	Kearney Slope,	Bedford,	Leg broken by fall of slate while cleaning coal at face of room.
Oct. 15	Steve Dremyock,	Slavonian,	Miner,	50	S.	Sylvania,	Clearfield,	Leg fractured by fall of slate while setting prop at face of room.
22	John Hawkins,	English,	Company man,	45	M.	Judith,	Bedford,	Leg broken at lower end of side track at foot of slope by empty runaway car that ran down slope.
31	Mike Lusca,	Slavonian,	Miner,	43	M.	Port No. 1,	Clearfield,	Collar bone broken by fall of coal while undermining at face of room.
Nov. 26	Joe Lorenzo,	Italian,	Machine runner,	46	M.	Davis,	Clearfield,	Back broken by fall of roof while undercutting coal with puncher machine at face of room. Boney coal broke between the props. Place was fairly well timbered.
Dec. 1	John Emrick,	American,	Company man,	40	M.	Penn No. 5,	Centre,	Leg broken by being struck by electric locomotive on haulage road.
5	Jacob Boring,	American,	Miner,	17	S.	Bacon No. 2,	Bedford,	Leg broken by fall of coal while undermining at face of room.
	Otto Benson,	American,	Miner,	21	S.	Jacobs,	Huntingdon,	Nose broken and lip cut by fall of slate at face of room.
20	Frank Chiplonish,	Polish,	Miner,	27	S.	Irvona No. 5,	Clearfield,	Leg broken by being caught between mine cars on entry. As he was taking in an empty car he ran into a loaded car standing on the entry.

CONDITION OF MINES

CORONA COAL AND COKE COMPANY AND H. B. SWOOPE COMPANY

Bucher.—Ventilation and drainage fair.

Davis.—Ventilation and drainage fair.

Corona.—Ventilation weak in some parts at face of workings. Drainage fair.

Shoff-Hegarty.—Ventilation poorly conducted to face of workings. Drainage fair.

Sylvania.—Ventilation in some parts good; in other parts only fair. Drainage defective on parts of haulage roads.

Morgan Run.—Ventilation and drainage fair.

ROCKHILL IRON AND COAL COMPANY

Robertsdale No. 1.—Ventilation and drainage fairly good.

Robertsdale Slope.—Ventilation at face of workings in some of the splits is below the amount required by law. The mine, however, is in a healthy condition and a new airway is being made, which will improve the ventilation. Drainage good.

Woodvale Shaft.—Ventilation and drainage fairly good.

BERWIND-WHITE COAL MINING COMPANY

Eureka No. 16.—Ventilation and drainage fair, except on parts of haulage roads.

Eureka No. 22.—Ventilation good; drainage fair.

Eureka No. 28.—Ventilation fairly good; drainage good.

Eureka No. 29.—Ventilation good; drainage fair.

JOSEPH E. THROPP

Kearney Slope.—Ventilation and drainage fair.

Kearney Plane.—Ventilation fair; drainage good.

Kearney Barnett No. 2.—Ventilation rather weak at face of workings. Drainage good.

Gordon.—Ventilation, drainage and general condition fairly good.

Melrose Nos. 5 and 6.—Ventilation and drainage fair.

CARBON COAL AND COKE COMPANY

Cambria No. 3.—Ventilation and drainage fair.

Ocean No. 2.—Ventilation fair; drainage defective on parts of haulage roads.

Ocean No. 3.—Ventilation and drainage fair.

Ocean No. 4.—Ventilation weak at face of workings; drainage fair.

Ocean No. 5.—Ventilation and drainage good.

Carbon No. 4.—Ventilation and drainage fair.

IRVONA COAL AND COKE COMPANY

Irvona No. 5.—Ventilation and drainage fair.

Irvona No. 10.—Ventilation and drainage fair.

BULAH SHAFT COAL COMPANY

Bulah Shaft.—Ventilation good; drainage defective on parts of haulage roads.

JAMES M. McINTYRE AND COMPANY

Shreeve Run.—Ventilation and drainage fair.

S. J. MOUNTZ AND COMPANY

Viola.—Ventilation and drainage fairly good.

GRAMPIAN COAL MINING COMPANY

Penn No. 4.—Ventilation fair; drainage defective on parts of haulage roads.

Penn No. 5.—Ventilation and drainage fair.

Decatur No. 11.—Ventilation and drainage fair.

COLONIAL IRON COMPANY

Judith.—Ventilation fair; drainage good.

S. HEGARTY'S SONS

Oakland No. 2.—Ventilation weak at face of workings; drainage fair.

Oakland No. 3.—Ventilation weak at face of workings; drainage fair.

JOHN LANGDON

Glendale Nos. 1 and 2.—Ventilation fair; drainage good.

Glendale No. 4.—Ventilation rather weak at face of workings. Drainage good.

Cambria No. 2.—Ventilation and drainage fairly good.

THOMAS McGLYNN

Yorkshire.—Ventilation and drainage fairly good.

BETZ COAL MINING COMPANY

Betz No. 2.—Ventilation weak at face of workings. Drainage good.

MADEIRA-HILL COAL MINING COMPANY

Elizabeth No. 1.—Ventilation fair; drainage defective on parts of haulage roads.

E. EICHELBERGER AND COMPANY

Bacon No. 2.—Ventilation and drainage fair.

BROAD TOP COAL AND MINERAL COMPANY

Jacobs.—Ventilation and drainage fairly good.

LELAND COAL MINING COMPANY

Leland No. 1.—Ventilation fair; drainage defective on parts of haulage roads.

Leland No. 10.—Ventilation and drainage fair.

W. A. GOULD AND BROTHER

Midvale No. 3.—Ventilation very poorly conducted to face of workings. Drainage fair.

Midvale No. 4.—Ventilation and drainage fair.

Henderson No. 5.—Ventilation fair; drainage defective on parts of haulage roads.

BLAIN RUN COAL COMPANY

Blain Run No. 1.—Ventilation weak at face of workings; drainage fair.

HUNTINGDON COAL COMPANY

Delaware No. 1.—Ventilation and drainage fairly good.

DUSHAN COAL MINING COMPANY

DuShan No. 1.—Ventilation weak at face of workings. Furnace too small to provide adequate ventilation. Drainage fair.

W. R. GALLAGHER AND BROTHER

Black Oak.—Ventilation and drainage fair.

GATEHOUSE AND SHOFF COAL COMPANY

Port No. 1.—Ventilation and drainage fair.

CLARK BROTHERS COAL MINING COMPANY

Falcon No. 2.—Ventilation and drainage fairly good.

Falcon No. 3.—Ventilation fair; drainage good.

JANESVILLE COAL COMPANY

Vulcan Shaft No. 1.—Ventilation and drainage fairly good.

J. BLAIR KENNERLY

Beccaria No. 1.—Ventilation weak at face of workings. Drainage fair.

A. J. BLACK

Black No. 1.—Did not come under the law until late in the year. Was not inspected.

Black No. 3.—Ventilation poorly conducted to face of workings. Drainage fair.

SCHIPPER BROTHERS COAL MINING COMPANY

Ladysmith Nos. 2 and 5.—Ventilation and drainage fair.

Ladysmith Nos. 3 and 4.—Ventilation fair; drainage good.

BELLFIELD COAL AND COKE COMPANY

Bend No. 5.—Ventilation and drainage fair.

HENRIETTA COAL COMPANY

Henrietta No. 5.—Ventilation fair; drainage defective on parts of haulage roads.

E. J. WALKER AND COMPANY

Stanley No. 2.—Ventilation good; drainage fair.

CENTRE COAL AND COKE COMPANY

Weston.—Ventilation and drainage good.

ROCKY RIDGE COAL COMPANY

Wrays Hill.—Ventilation in dip section fairly good, but very poorly conducted to hill section. Drainage fair.

STANDARD MOSHANNON COAL COMPANY

Standard No. 4.—Ventilation and drainage fair.

SHANNON COAL COMPANY

Martha Nos. 2 and 3.—Ventilation and drainage fair.

REED COLLIERY COMPANY

Benedict.—Ventilation poorly conducted to face of workings. Drainage fair.

VIVIAN COAL AND COKE COMPANY

Vivian No. 1.—Ventilation and drainage fair.

BULAH COAL COMPANY

Webster No. 4.—Ventilation good; drainage fair.

LOUISE COAL COMPANY

Rock Bar.—Ventilation and drainage fairly good.

FERNWOOD COAL COMPANY

Mt. Vernon No. 10.—Ventilation and drainage fair.

ANDA COAL COMPANY

Mt. Branch.—Ventilation fair; drainage good.

KELLEY BROTHERS COAL COMPANY

Vulcan No. 1.—Ventilation and drainage fair.

RAMEY COAL COMPANY

Ramey No. 1.—Ventilation and drainage fair.

ATLANTIC COAL MINING COMPANY

Atlantic.—Ventilation and drainage fairly good.

HARBISON WALKER REFRACTORIES COMPANY

Cambria No. 1.—Ventilation and drainage good.

LESKIE COAL MINING COMPANY

Leskie No. 1.—Ventilation fair; drainage defective on haulage roads.

HENRY LIVERIGHT

Reliance.—Ventilation and drainage fair.

MICHAEL BURNS

Penn No. 1.—Ventilation and drainage fair.

LULU COAL COMPANY

Lulu No. 1.—Ventilation and drainage fairly good.

MOSHANNON COAL MINING COMPANY

Lenore Nos. 1 and 2.—Ventilation weak at face of workings; drainage fair.

Moshannon No. 4.—Ventilation fair; drainage defective on haulage roads.

BRISBIN COAL MINING COMPANY

Mascot No. 2.—Ventilation and drainage fair.

WILLIAM HEIL

Mt. Verde No. 1.—Did not come under the law until very late in the year. Was not inspected.

NEVELING COAL MINING COMPANY

Little Beaver No. 1.—Ventilation and drainage fairly good.

SAXTON COAL COMPANY

Kenmar Nos. 2 and 3.—Ventilation weak at face of workings; drainage fair.

HIGHLAND COAL MINING COMPANY

Highland No. 4.—Ventilation and drainage fair.

CEDAR HILL COAL MINING COMPANY

Lenore Nos. 1 and 2.—Ventilation weak at face of workings; drainage fair.

BROWN BROTHERS

Brown No. 1.—Ventilation and drainage fair.

LOBB AND ANDREWS

Eleanor No. 1.—Ventilation fair; drainage defective in some parts.

HENRY MYERS

Monroe.—Ventilation and drainage fair.

WITCHEY AND GRIFFITH

Harrison.—Ventilation good; drainage fair.

BLACK OAK COAL COMPANY

Olympia.—Ventilation and drainage fair.

IMPROVEMENTS

CORONA COAL AND COKE COMPANY AND H. B. SWOOPE COMPANY

Davis.—Installed a 12-foot Stine fan, electrically driven.

Shoff-Hegarty.—Built a new tipple, equipped with a picking table, and opened a new drift.

ROCKHILL IRON AND COAL COMPANY

Robertsdale Slope.—Built two new overcasts and forty concrete stoppings.

Woodvale Shaft.—Extended rope haulage system about 2,000 feet, Hoisting shaft concreted 18 feet from surface. New head frame and tipple erected and self-dumping cages installed. Built 2 concrete overcasts and large number of concrete stoppings.

BERWIND-WHITE COAL MINING COMPANY

Eureka No. 28.—Extended motor haulage road in dip section, installed one electric locomotive and built 40 brick stoppings.

Eureka No. 29.—Installed an electric pump and electric motor haulage.

JOSEPH E. THROPP

Kearney Slope.—Put down a 10-inch drill hole from surface to discharge water from pump. Installed electric hoist.

Gordon.—Installed a 100 K. W. generator, built new power house; installed new fan with concrete foundations.

CARBON COAL AND COKE COMPANY

Ocean No. 5.—Installed a new 5-foot Stine fan.

Carbon No. 4.—Installed a new 10-foot Brazil fan.

S. J. MOUNTZ AND COMPANY

Viola.—Built 30 brick stoppings and installed 2 automatic doors.

GRAMPIAN COAL MINING COMPANY

Penn No. 5.—Installed one 8-foot Stine fan, electrically driven, one electric motor, and 2 coal-cutting machines. The power is supplied by the Penn Public Service Company.

COLONIAL IRON COMPANY

Judith.—Rope haulage road extended; built new overcast and 30 concrete stoppings.

THOMAS McGLYNN

Yorkshire.—Made new second opening.

DUSHAN COAL MINING COMPANY

DuShan No. 1.—Installed an electric pump.

SCHIPPER BROTHERS COAL MINING COMPANY

Ladysmith Nos. 2 and 5.—Installed a 10 foot Brazil fan, drove a tunnel from Fulton to Barnett seam.

Ladysmith Nos. 3 and 4.—Built a new tipple, installed a picking table on same.

E. J. WALKER AND COMPANY

Stanley No. 2.—Installed 2 electric pumps.

CENTRE COAL AND COKE COMPANY

Weston.—Installed electric haulage system and a generator set to convert electric power from alternating to direct current.

BRISBIN COAL MINING COMPANY

Mascot No. 2.—Installed electric haulage system, with generator set for converting electric power from alternating to direct current; also installed an electric pump and a 5-foot electrically driven Stine fan.

PROSECUTIONS FOR VIOLATION OF THE MINING LAWS

November 25.—John Petrovich, driver, Bulah Shaft mine, Bulah Shaft Coal Company. Charge: Neglected to close trap door. Plead guilty before a justice of the peace, at Ramey, and was fined $5.00 and costs.

December 9.—Chester Woods, miner, Robertsdale Slope mine, Rockhill Iron and Coal Company. Charge: Forcing door open that was kept locked to prevent persons from traveling on rope haulage road. Plead guilty before a justice of the peace, at Robertsdale, and paid all costs.

MINE FOREMEN'S, ASSISTANT MINE FOREMEN'S AND FIRE BOSSES' EXAMINATIONS

The annual examination of applicants for certificates of qualification as mine foremen, assistant mine foremen and fire bosses was held in the P. R. R. Y. M. C. A. Building, Tyrone, May 6, 7 and 8.

The Board of Examiners was composed of Thomas A. Mather, Inspector; Robert H. Kay, Superintendent; and Richard Adams, Miner.

There were 16 applicants for certificates of qualification as mine foremen and assistant mine foremen. There were no applicants for certificates as fire bosses.

The following persons passed a satisfactory examination and were granted certificates:

MINE FOREMEN

Second Grade

James Henry Vincent, Henry Custer, Houtzdale; Teddie F. Price, Robertsdale; Howard E. Reed, Dudley.

NINETEENTH DISTRICT

WESTMORELAND COUNTY

Irwin, Pa., January 31, 1914.

Hon. James E. Roderick, Chief of Department of Mines:

Sir: I have the honor to transmit herewith the annual report of the Nineteenth Bituminous District for the year ending December 31, 1913, in compliance with the Act of Assembly of June 9, 1911.

Respectfully submitted,

ARTHUR NEALE, Inspector.

SUMMARY OF STATISTICS

Number of mines,	28
Number of mines in operation,	28
Number of tons of coal shipped to market,	8,310,115
Number of tons used at mines for steam and heat,	222.094
Number of tons sold to local trade and used by employes,	35,348
Number of tons used in the manufacture of coke,	50,431
Number of tons of coal produced,	8,617.988
Number of tons of coke produced,	31,336
Number of coke ovens,	85
Number of coke ovens in operation,	85
Number of tons of coal produced by pick mining,	3,869,664
Number of tons produced by compressed air machines,	1,613,629
Number of tons produced by electrical machines,	3,134,695
Number of persons employed inside of mines,	6,752
Number of persons employed outside, including coke workers,	991
Number of persons employed at manufacture of coke,	43
Number of fatal accidents inside of mines,	26
Number of fatal accidents outside,	2
Number of non-fatal accidents inside of mines,	42
Number of non-fatal accidents outside,	1
Number of tons of coal produced per fatal accident inside,	331,461
Number of tons produced per fatal accident outside,	4,308,994
Number of tons produced per fatal accident inside and outside,	307,785
Number of persons employed per fatal accident inside,	260
Number of persons employed per fatal accident outside,	495
Number of persons employed per fatal accident inside and outside,	277
Number of persons employed per non-fatal accident inside,	161
Number of persons employed per non-fatal accident outside,	991
Number of persons employed per non-fatal accident inside and outside,	180
Number of wives made widows,	18
Number of children made orphans,	39
Number of steam locomotives used inside of mines,	....
Number of steam locomotives used outside,	1
Number of compressed air locomotives used inside,	11
Number of compressed air locomotives used outside.	...
Number of electric motors used inside,	56
Number of electric motors used outside,	1
Number of gasoline locomotives used inside,	2
Number of fans in use,	29
Number of furnaces in use,	....
Number of gaseous mines in operation,	15
Number of non-gaseous mines in operation,	13
Number of new mines opened,	....
Number of old mines abandoned,	....

TABLE A

PRODUCTION OF COAL

Names of Operators

	Tons
Westmoreland Coal Company,	2,195,380
Keystone Coal and Coke Company,	1,454,921
Ocean Coal Company,	1,122,151
New York and Cleveland Gas Coal Company,	1,034,541
Penn Gas Coal Company,	975,331
Pittsburgh and Baltimore Coal Company,	606,576
Manor Gas Coal Company,	449,473
Pittsburgh-Westmoreland Coal Company,	434,173
W. B. Skelly Coal Company,	110,002
Export Coal Company,	88,055
Adamsburg Gas Coal Company,	78,093
Bixler Coal and Coke Company,	35,770
Westmoreland Gas Coal Company,	33,522
Total,	8,617,988

Production by Counties

Westmoreland,	8,617,988

TABLE B.—Fatal and non-fatal accidents inside and outside of mines; number of tons of coal produced per accident; number of persons employed; number employed per accident

Names of Operators	Fatal Accidents			Non-Fatal Accidents			Tons of coal produced per fatal accident inside	Tons of coal produced per non-fatal accident inside	Number of employes inside	Number of employes outside	Total number of employes	Number of employes inside per fatal accident	Number of employes outside per fatal accident	Number of employes inside per non-fatal accident	Number of employes outside per non-fatal accident
	Inside	Outside	Total	Inside	Outside	Total									
Westmoreland Coal Co.,	4	......	4	6	......	6	548,845	365,897	1,669	211	1,880	417	....	278	....
Keystone Coal and Coke Co.,	6	......	6	15	......	15	242,487	96,995	1,214	205	1,419	202	....	81	....
Ocean Coal Co.,	6	......	6	7	......	7	187,025	160,307	791	115	906	132	....	113	....
New York and Cleveland Gas Coal Co.,	1	......	1	2	......	2	1,034,541	517,270	928	94	1,022	928	....	464	....
Penn Gas Coal Co.,	2	......	2	5	1	6	487,665	195,066	574	105	679	287	....	115	105
Pittsburgh and Baltimore Coal Co.,	4	1	5	3	......	3	151,644	202,192	510	77	587	127	77	170	....
Manor Gas Coal Co.,	1	......	1	1	......	1	449,473	449,473	331	38	369	331	....	331	....
Pittsburgh-Westmoreland Coal Co.,	......	1	1	......	......	......	....	....	434	64	498	....	64	....	....
W. B. Skelly Coal Co.,	......	......	......	1	......	1	....	110,002	92	13	105	....	....	92	....
Export Coal Co.,	1	......	1	1	......	1	88,055	88,055	74	11	85	74	....	74	....
Adamsburg Gas Coal Co.,	1	......	1	1	......	1	78,093	78,093	70	10	80	70	....	70	....
Miscellaneous Companies,	......	......	......	......	......	......	....	....	65	48	113	....	....	....	....
Totals and averages for district,	26	2	28	42	1	43	331,461	205,190	6,752	991	7,743	260	495	161	991

TABLE C.—Classification of Fatal Accidents Inside and Outside of Mines

	Months													
	January	February	March	April	May	June	July	August	September	October	November	December	Totals	Percentages
Causes of Accidents Inside														
Falls of coal,	....	....	....	1	....	....	....	....	....	....	....	....	1	3.85
Falls of slate,	1	....	1	1	....	....	....	....	1	1	1	2	8	30.77
Falls of roof,	....	....	1	....	1	....	....	1	....	2	....	2	7	26.92
Mine cars,	2	....	1	....	3	....	....	....	....	1	....	....	7	26.92
Electricity,	1	....	....	....	....	....	1	....	....	....	....	....	2	7.69
Struck by timber,	....	....	....	....	....	....	....	1	....	....	....	....	1	3.85
Totals,	4	....	3	2	4	....	1	2	1	4	1	4	26	100.00
Causes of Accidents Outside														
Cars,	....	1	....	....	....	....	....	....	....	....	1	....	2	100.00
Totals,	....	1	....	....	....	....	....	....	....	....	1	....	2	100.00
Grand totals inside and outside,	4	1	3	2	4	....	1	2	1	4	2	4	28	......

TABLE D.—Classification of Non-Fatal Accidents Inside and Outside of Mines

	Months													
	January	February	March	April	May	June	July	August	September	October	November	December	Totals	Percentages
Causes of Accidents Inside														
Falls of coal,	2	1	....	2	1	....	1	1	....	2	....	....	10	23.81
Falls of slate,	3	1	1	....	3	1	3	....	1	3	1	1	18	42.86
Falls of roof,	....	....	....	....	....	....	1	....	1	....	....	....	2	4.76
Mine cars,	1	....	....	....	....	....	....	1	....	3	1	....	6	14.29
Blasts, premature and otherwise,	....	....	....	....	1	....	....	....	....	....	....	....	1	2.38
Machinery,	....	1	....	....	....	....	....	....	....	....	....	....	1	2.38
Electricity,	....	....	....	1	....	....	....	....	....	....	....	....	1	2.38
Explosion of detonator,	....	....	....	....	....	....	....	....	....	....	....	1	1	2.38
Scalded by hot water,	....	....	....	....	....	....	....	....	....	....	1	....	1	2.38
Falling while carrying piece of slate,	....	....	....	....	....	....	....	1	....	....	....	....	1	2.38
Totals,	6	3	1	3	5	1	5	3	2	8	3	2	42	100.00
Causes of Accidents Outside														
Falling on cage,	....	....	....	....	....	....	....	....	....	....	....	1	1	100.00
Totals,	....	....	....	....	....	....	....	....	....	....	....	1	1	100.00
Grand totals inside and outside,	6	3	1	3	5	1	5	3	2	8	3	3	43	......

TABLE E.—Occupations of Persons Killed or Fatally Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
Inside													
Assistant mine foremen,	1	....	....	....	....	....	....	....	....	....	....	....	1
Miners,	....	....	1	2	1	....	1	....	....	1	1	2	9
Machine runners,	....	....	....	....	....	....	....	....	....	....	....	1	1
Machine loaders,	2	....	1	....	....	....	....	1	1	1	....	....	6
Machine scrapers,	....	....	....	....	1	....	....	....	....	....	....	1	2
Drivers and runners,	1	....	....	....	....	....	....	....	....	1	....	....	2
Company men,	....	....	1	....	1	....	....	1	....	1	....	....	4
Laborers,	....	....	....	....	1	....	....	....	....	....	....	....	1
Totals,	4	....	3	2	4	....	1	2	1	4	1	4	26
Outside													
Laborers,	....	1	....	....	....	....	....	....	....	....	....	....	1
Greasers,	....	....	....	....	....	....	....	....	....	....	1	....	1
Totals,	....	1	....	....	....	....	....	....	....	....	1	....	2
Grand totals inside and outside,	4	1	3	2	4	....	1	2	1	4	2	4	28

TABLE F.—Occupations of Persons Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
Inside													
Miners,	2	....	....	1	3	....	1	1	....	1	....	1	10
Machine runners,	....	1	....	....	....	....	....	....	....	....	....	1	2
Machine loaders,	3	2	1	2	2	1	3	1	1	5	2	....	23
Machine scrapers,	....	....	....	....	....	....	....	....	....	1	....	....	1
Drivers and runners,	1	....	....	....	....	....	1	1	1	1	....	....	5
Greasers,	....	....	....	....	....	....	....	....	....	....	1	....	1
Totals,	6	3	1	3	5	1	5	3	2	8	3	2	42
Outside													
Laborers,	....	....	....	....	....	....	....	....	....	....	....	1	1
Totals,	....	....	....	....	....	....	....	....	....	....	....	1	1
Grand totals inside and outside,	6	3	1	3	5	1	5	3	2	8	3	3	43

TABLE G.—Nationality of Persons Killed or Fatally Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
American,	1	....	....	....	....	....	....	....	....	....	1	....	2
English,	....	....	1	....	....	....	....	1	....	....	....	....	2
Polish,	....	....	....	....	1	....	....	....	....	1	....	....	2
Hungarian,	....	....	1	1	....	....	....	....	....	....	....	....	2
Italian,	....	1	....	....	2	....	....	....	....	2	....	....	5
Slavonian,	....	....	....	....	....	....	....	....	....	....	....	1	1
Lithuanian,	....	....	....	....	....	....	....	1	....	....	....	....	1
Austrian,	1	....	1	....	....	....	1	....	1	....	1	....	5
Russian,	....	....	....	....	1	....	....	....	....	....	....	1	2
Swedish,	1	....	....	....	....	....	....	....	....	....	....	....	1
Horwat,	1	....	....	1	....	....	....	....	....	1	....	1	4
Servian,	....	....	....	....	....	....	....	....	....	....	....	1	1
Totals,	4	1	3	2	4	....	1	2	1	4	2	4	28

TABLE H.—Nationality of Persons Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
American,	....	1	....	....	1	....	....	....	....	....	1	....	3
Irish,	....	....	....	....	....	....	....	....	....	1	....	....	1
German,	....	....	....	1	....	....	....	....	1	....	....	....	2
Polish,	1	....	....	....	2	....	2	2	....	2	....	1	10
Hungarian,	1	....	....	....	....	....	....	....	....	1	....	....	2
Italian,	1	1	....	....	1	....	1	1	1	1	....	1	8
Slavonian,	1	1	....	....	....	1	....	....	....	....	....	....	3
Austrian,	2	....	1	1	1	....	1	....	....	3	1	....	10
Roumanian,	....	....	....	....	....	....	....	....	....	....	....	1	1
Horwat,	....	....	....	1	....	....	....	....	....	....	....	....	1
Servian,	....	....	....	....	....	....	1	....	....	....	....	....	1
Croatian,	....	....	....	....	....	....	....	....	....	....	1	....	1
Totals,	6	3	1	3	5	1	5	3	2	8	3	3	43

TABLE I.—Operators and mines, kind of openings, type and size of fans, size of furnaces, volume of air produced by fan or furnace per minute, number of splits of air currents and number of persons employed inside

Names of Operators and Mines	Kind of opening	Gaseous or non-gaseous	Method of ventilation	Diameter of fan in feet and inches	Width of blades in feet and inches	Depth of blades in feet and inches	Number of revolutions per minute	Water gauge developed—in inches	Name of fan	Power used	Area of furnace bars in square feet	Number of splits of air currents	Number of cubic feet of air per minute entering the mine at inlet	Total number of cubic feet of air per minute circulating in all the splits	Number of cubic feet of air per minute passing out at outlet	Number of persons employed inside
Westmoreland Coal Co.																
Criterion, ...	Shaft, ...	Gaseous, ..	Fan, ...	20.0	11.0	6.0	110	2.8	Robinson, .	Steam, ...	..	13	206,400	142,020	212,400	523
Export No. 1, ...	Drift, ...	Non-gas., .	Fan, ...	24.0	8.0	6.0	90	3.0	Vulcan, ..	Steam, ...	..	7	157,000	65,150	161,500	709
Export No. 2, ...	Drift, ...	Gaseous, ..	Fan, ...	15.8	5.8	4.0	140	2.2	Scottdale,	Steam, ...		12	160,950	81,450	171,000	
			Fan, ...	13.0	5.0	4.0	86	0.8	Scottdale,	Steam, ...						
Southside, ...	Drift, ...	Non-gas., .	Fan, ...	7.0	......	......	200	0.5	Stine, ...	Electricity, .	..	2	24,000	15,500	15,500	65
Westmoreland Shaft, ...	Shaft, ...	Gaseous, ..	Fan, ...	20.0	10.0	6.0	98	2.8	Robinson, .	Steam, ...	..	10	194,450	87,640	200,000	372
Keystone Coal and Coke Co.																
Arona, ...	Slope, ...	Gaseous, ..	Fan, ...	16.5	6.5	4.5	73	2.8	Guibal, .	Steam, ...		6	86,800	56,000	94,471	183
Claridge, ...	Slope, ...	Non-gas., .	Fan, ...	16.0	6.0	4.5	100	1.5	Guibal, ..			4	75,600	48,200	80,200	157
Keystone Shaft, ...	Shaft, ...	Gaseous, ..	Fan, ...	20.0	8.0	9.5	96	2.4	Capell, ..			7	198,100	78,500	206,400	395
Madison, ...	Drift, ...	Non-gas., .	Fan, ...	20.0	7.0	5.0	70	1.0	Guibal, ..			4	87,000	53,000	90,000	77
Sewickley, ...	Slope, ...	Gaseous, ..	Fan, ...	25.0	8.0	8.5	95	3.0	Robinson, .			9	124,000	119,000	150,200	402
Ocean Coal Co.																
Ocean No. 1, ...	Shaft, ...	Gaseous, ..	Fan, ...	9.0	7.0	0.9	215	4.0	Sirocco, .	Steam, ...	..	8	160,000	96,500	165,000	421
Ocean No. 2, ...	Shaft, ...	Gaseous, ..	Fan, ...	18.0	5.0	1.6	125	3.0	Clifford, .	Steam, ...	..	10	158,000	99,050	163,000	370
New York and Cleveland Gas Coal Co.																
Delmont No. 1, ...	Slope, ...	Non-gas., .	Fan, ...	14.0	6.0	4.6	65	0.5	Jeffrey, ..	Steam, ...	..	8	88,830	57,710	99,250	200
Delmont No. 2, ...	Drift, ...	Non-gas., .	Fan, ...	8.0	......	......	380	1.2	Stine, ...	Electricity, .	..	7	61,500	59,900	68,000	360
Delmont No. 3, ...	Drift, ...	Non-gas., .	Fan, ...	12.0	3.0	4.6	100	1.2	Capell, ..	Electricity, .	..	8	66,000	48,750	70,000	172
Lyons Run, ...	Drift, ...	Non-gas., .	Fan, ...	13.5	7.0	6.4	130	2.2	Capell, ..	Steam, ...	..	7	88,000	74,800	108,000	242

Penn Gas Coal Co.																
Penn Gas No. 2, ...	Shaft,.....	Gaseous, ..	Fan, ...	16.0	6.0	3.5	127	2.2	Capell, ..	Steam,......	..	9	163,540	105,900	173,100	360
Penn Gas No. 5, ...	Slope,.....	Gaseous, ..	Fan, ...	13.5	5.0	2.6	141	2.2	Capell, ..	Electricity,.	..	8	106,540	62,600	111,400	214
Pittsburgh and Baltimore Coal Co.																
Edna No. 1, ...	Slope,.....	Gaseous, ..	Fan, ...	20.0	9.0	1.8	100	5.0	Sirocco, .	Steam,......	..	6	100,000	40,000	102,000	210
Edna No. 2, ...	Shaft,.....	Gaseous, ..	Fan, ...	8.0	6.0	0.6	225	2.1	Sirocco, .	Electricity,.	..	11	91,080	56,490	128,970	300
Manor Gas Coal Co.																
Denmark, ...	Slope,.....	Gaseous, ..	Fan, ...	16.0	7.0	7.6	130	2.8	Capell, ..	Steam,......	..	7	134,700	84,700	137,200	331
Pittsburgh-Westmoreland Coal Co.																
Penn-Manor No. 1, ...	Shaft,.....	Gaseous, ..	Fan, ...	11.0	7.0	3.0	98	1.0	Capell, ..	Electricity,.	..	3	86,450	63,600	90,000	267
Penn-Manor No. 5, ...	Slope,.....	Gaseous, ..	Fan, ...	9.0	7.0	4.0	185	1.5	Capell, ..	Steam,......	..	4	72,600	40,620	74,090	167
W. B. Skelly Coal Co.																
Elizabeth, ...	Drift, ...	Non-gas., .	Fan, ...	7.0	3.0	2.9	284	0.5	Stine, ...	Electricity,.	..	1	26,892	24,000	33,800	92
Export Coal Co.																
Star, ...	Slope,.....	Non-gas., .	Fan, ...	7.0	3.0	2.9	270	0.9	Stine, ...	Electricity,.	..	2	50,000	42,000	52,000	74
Adamsburg Gas Coal Co.																
Gress, ...	Slope,.....	Non-gas., .	Fan, ...	7.0	2.0	3.5	230	0.8	Stine, ...	Steam,......	..	3	33,600	27,000	37,400	70
Bixler Coal and Coke Co.																
Little Gem, ...	Drift, ...	Non-gas., .	Fan, ...	5.0	2.5	1.0	390	0.5	Stine, ...	Electricity,.	..	1	28,000	8,000	30,000	37
Westmoreland Gas Coal Co.																
Hillside, ...	Drift, ...	Non-gas., .	Fan, ...	5.0	2.2	2.0	350	0.1	Stine, ...	Electricity,.	..	2	18,000	8,000	20,000	28

TABLE J.—Mines using coal cutting machines, power used, geological and local names of seams, thickest and thinnest seams where machines are used, and the approximate number of tons produced by machines

Names of Operators	Names of Mines	Kind of opening	Gaseous or non-gaseous	Number of mining machines used	Power used by machines	Geological and local names of seams	Average thickness in inches	Height of Seam in Inches		Approximate number of tons produced by machines
								Thickest	Thinnest	
Westmoreland Coal Co.,	Criterion,	Shaft,	Gaseous,	15	Compressed air,	Pittsburgh,	72	72	72	258,362
	Export No. 1,	Drift,	Non-gas.,	18	Electricity,					484,026
	Export No. 2,	Drift,	Gaseous,							
	Westmoreland Shaft,	Shaft,	Gaseous,	15	Compressed air,					343,631
Totals,				48						1,086,019
Keystone Coal and Coke Co.,	Arona,	Slope,	Gaseous,	6	Electricity,	Pittsburgh,	78	84	72	83,692
	Keystone Shaft,	Shaft,	Gaseous,	24	Compressed air,		69	74	61	280,707
	Sewickley,	Slope,	Gaseous,	10	Compressed air,		78	84	72	323,126
Totals,				40						637,525
Ocean Coal Co.,	Ocean No. 1,	Shaft,	Gaseous,	14	Electricity,	Pittsburgh,	72	82	57	491,762
	Ocean No. 2,	Shaft,	Gaseous,	2 14	Compressed air, Electricity,		72	114	60	62,000 400,067
Totals,				30						953,829
Penn Gas Coal Co.,	Penn Gas No. 2,	Shaft,	Gaseous,	12	Compressed air,	Pittsburgh,	69	78	60	345,803
	Penn Gas No. 5,	Slope,	Gaseous,	9	Electricity,		69	78	60	364,877
Totals,				21						710,680

Pittsburgh and Baltimore Coal Co.	Edna No. 1,	Slope,	Gaseous,	10	Electricity,	Pittsburgh,	76	96	72	241,287
	Edna No. 2,	Shaft,	Gaseous,	11			65	74	60	242,031
Totals,				21						483,318
Manor Gas Coal Co.,	Denmark,	Slope,	Gaseous,	10	Electricity,	Pittsburgh,	66	76	60	305,641
Pittsburgh-Westmoreland Coal Co.	Penn-Manor No. 1,	Shaft,	Gaseous,	8	Electricity,	Pittsburgh,	66	77	60	225,813
	Penn-Manor No. 5,	Slope,	Gaseous,	7			69	78	62	144,296
Totals,				15						370,109
W. B. Skelly Coal Co.,	Elizabeth,	Drift,	Non-gas.,	3	Electricity,	Pittsburgh,	72	84	60	81,625
Export Coal Co.,	Star,	Slope,	Non-gas.,	2	Electricity,	Pittsburgh,	68	72	60	69,578
Grand totals,				190						4,748,324

TABLE 1.—Operators, Location of Mines, Railroads, etc.

Names of Operators and Mines	County	Name of General Superintendent	Post Office	Name of Superintendent	Post Office	Railroad to Mine
Westmoreland Coal Co.						
Criterion,	Westmoreland,	A. P. Cameron,	Irwin,	F. P. McClain,	Rillton,	Pennsylvania
Export Nos. 1 and 2,				J. P. McCallen,	Export,	
Southside,				Edward R. Jones,	Larimer,	
Westmoreland Shaft,				Edmond Whiteman,	Irwin,	
Keystone Coal and Coke Co.						
Arona,	Westmoreland,	H. F. Bovard,	Greensburg,	D. Fleming,	Darragh,	Pennsylvania
Claridge,				C. H. Daily,	Claridge,	
Keystone Shaft,				H. T. Knight,	Darragh,	
Madison,				D. Fleming,	Darragh,	
Sewickley,				D. Fleming,	Darragh,	
Ocean Coal Co.						
Ocean Nos. 1 and 2,	Westmoreland,	Thomas Fisher,	Philadelphia, Commercial Trust Bldg.	J. D. Simpson,	Herminie,	Pennsylvania
New York and Cleveland Gas Coal Co.						
Delmont Nos. 1, 2 and 3,	Westmoreland,	Hugh Dunning,	Turtle Creek,	Hugh Dunning,	Export,	Pennsylvania
Lyons Run,				Hugh Dunning,	Irwin, R. F. D.,	
Penn Gas Coal Co.						
Penn Gas No. 2,	Westmoreland,	J. J. Collier,	Irwin,	J. W. Rymer,	Irwin,	Pennsylvania
Penn Gas No. 5,				J. B. Smith,	Irwin,	
Pittsburgh and Baltimore Coal Co.						
Edna No. 1,	Westmoreland,	John Gibson, Jr.,	Pittsburgh,	James Ainsley,	Adamsburg,	Baltimore and Ohio
Edna No. 2,				A. A. Allan,	Wendel,	
Manor Gas Coal Co.						
Denmark,	Westmoreland,	H. L. Good,	Claridge,			Pennsylvania
Pittsburgh-Westmoreland Coal Co.						
Penn-Manor No. 1,	Westmoreland,	H. K. Knopf,	Pittsburgh,	J. G. Ferguson,	Harrison City,	Pennsylvania
Penn-Manor No. 5,				Howard Dewalt,	Harrison City,	
W. B. Skelly Coal Co.						
Elizabeth,	Westmoreland,	W. B. Skelly,	Export,			Pennsylvania
Export Coal Co.						
Star,	Westmoreland,	J. S. Pates,	Export,	Samuel Homer,	Export,	Pennsylvania

Adamsburg Gas Coal Co. Gress,	Westmoreland,			H. F. Baer,	Adamsburg,	Baltimore and Ohio
Bixler Coal and Coke Co. Little Gem,	Westmoreland,	Ira E. Bixler,	Pittsburgh,	Robert Ainsley,	Adamsburg,	Baltimore and Ohio
Westmoreland Gas Coal Co. Hillside,	Westmoreland,	W. L. Affelder,	Pittsburgh,	H. J. McArdle,	Arona,	Pennsylvania

TABLE 2.—Number of tons of coal mined and tons of coke produced, number of days worked, number of persons employed, number killed and injured, quantity of powder, dynamite and permissible explosives used, etc.

Names of Operators and Mines	County	Number of tons of coal shipped to market	Number of tons used at mines for steam and heat	Number of tons sold to local trade and used by employes	Number of tons used in manufacture of coke	Total production of coal in tons	Total production of coke in tons	Number of coke ovens	Number of days worked	Number of employes	Number of fatal accidents	Number of non-fatal accidents	Explosives			Number of horses and mules
													Number of pounds of powder used	Number of pounds of dynamite used	Number of pounds of permissible explosives used	
Westmoreland Coal Co.																
Criterion, ...	Westmoreland, ..	638,122	15,126	2,160	....	655,408	....	......	299	584	1	1	....	....	58,345	36
Export Nos. 1 and 2,.		953,080	15,622	1,732	....	970,384	....	......	297	805	2	3	*	....	500	48
Southside, ...		56,233	....	5,384	....	61,617	....	......	293	71	....	....	*	....	....	9
Westmoreland Shaft, .		484,475	20,317	3,179	....	507,971	....	......	306	420	1	2	....	....	52,804	37
Totals, ...	....	2,131,860	51,065	12,455	....	2,195,880	....	......	......	1,880	4	6	....	....	111,649	130
Keystone Coal and Coke Co.																
Arona, ...	Westmoreland, ..	212,271	3,951	1,870	....	218,092	....	......	295	213	2	1	13,085	....	3,053	24
Claridge, ...		197,163	5,584	2,773	....	205,520	....	......	286	177	....	....	*	....	2,000	11
Keystone Shaft, ...		417,457	27,895	1,625	....	446,977	....	......	294	475	1	6	*	314	3,960	37
Madison, ...		97,895	1,150	188	....	99,233	....	......	291	86	....	....	7,938	....	....	5
Sewickley, ...		462,766	22,113	220	....	485,099	....	......	298	468	3	8	29,105	....	6,791	37
Totals, ...	....	1,387,552	60,693	6,676	....	1,454,921	....	......	......	1,419	6	15	50,128	314	15,804	114
Ocean Coal Co.																
Ocean No. 1, ...	Westmoreland, ..	560,255	16,243	2,045	....	578,543	....	......	304	476	5	7	12,000	....	15,000	22
Ocean No. 2, ...		523,086	19,624	898	....	543,608	....	......	307	430	1	....	13,400	....	14,300	20
Totals, ...	....	1,083,341	35,867	*2,943	....	1,122,151	....	......	......	906	6	7	25,400	....	29,300	42

*Not reported.

New York and Cleveland Gas Coal Co.																
Delmont Nos. 1, 2 and 3, ...	Westmoreland, ..	746,129	2,387	2,261	....	750,777	....	......	234	756	1	2	60,000	310	....	39
Lyons Run, ...		278,706	4,230	828	....	283,764	....	......	228	266	....	....	1,500	....	....	18
Totals, ...	....	1,024,835	6,617	3,089	....	1,034,541	....	......	......	1,022	1	2	61,500	310	....	57
Penn Gas Coal Co.																
Penn Gas No. 2, ...	Westmoreland, ..	510,696	25,720	2,319	....	538,735	....	......	298	430	1	4	....	....	34,000	29
Penn Gas No. 5, ...		434,539	....	2,057	....	436,596	....	......	288	249	1	2	....	....	30,000	23
Totals, ...	....	945,235	25,720	4,376	....	975,331	....	......	......	679	2	6	....	....	64,000	52
Pittsburgh and Baltimore Coal Co.																
Edna No. 1, ...	Westmoreland, ..	274,715	7,367	655	....	282,737	....	......	251	246	1	2	20,775	....	257	31
Edna No. 2, ...		312,829	9,628	1,382	....	323,839	....	......	247	341	4	1	30,000	50	200	26
Totals, ...	....	587,544	16,995	2,037	....	606,576	....	......	......	587	5	3	50,775	50	457	57
Manor Gas Coal Co.																
Denmark, ...	Westmoreland, ..	435,462	12,850	1,161	....	449,473	....	......	298	369	1	1	70,000	40	2,000	24
Pittsburgh-Westmoreland Coal Co.																
Penn-Manor No. 1, ...	Westmoreland, ..	266,393	4,218	1,214	....	271,825	....	......	275	304	....	....	30,384	....	....	32
Penn-Manor No. 5, ...		158,986	2,714	648	....	162,348	....	......	281	194	1	....	21,374	....	....	18
Totals, ...	....	425,379	6,932	1,862	....	434,173	....	......	......	498	1	....	51,758	....	....	50
W. B. Skelly Coal Co.																
Elizabeth, ...	Westmoreland, ..	107,676	2,100	226	....	110,002	....	......	261	105	....	1	*	....	....	2
Export Coal Co.																
Star, ...	Westmoreland, ..	85,875	2,160	20	....	88,055	....	......	300	85	1	1	8,800	130	....	4
Adamsburg Gas Coal Co.																
Gress, ...	Westmoreland, ..	76,690	1,095	308	....	78,093	....	......	292	80	1	1	*	....	....	5
Bixler Coal and Coke Co.																
Little Gem, ...	Westmoreland, ..	7,400	....	120	28,250	35,770	14,700	40	307	56	....	....	100	....	50	4
Westmoreland Gas Coal Co.																
Hillside, ...	Westmoreland, ..	11,266	....	75	22,181	33,522	16,636	45	236	57	....	....	500	....	7,500	3
Grand totals, ...	....	8,310,115	222,094	35,348	50,431	8,617,988	31,236	85	......	7,743	28	43	318,961	894	230,760	544

*Not reported.

TABLE 2—Part 2

Names of Operators	County	Number of Boilers					Locomotives				Number of steam engines of all classes	Total horse power	Number of pumps delivering water to surface	Capacity in gallons per minute	Quantity delivered to surface per minute—gallons	Number of electric dynamos	Number of air compressors
		Cylindrical	Horse power	Tubular	Horse power	Total horse power	Gasoline	Steam	Air	Electric							
Westmoreland Coal Co., ...	Westmoreland,	....	......	32	4,380	4,380	1	......	......	12	31	4,343	10	7,727	5,076	8	5
Keystone Coal and Coke Co.,		....	......	20	3,300	3,300	1	......	7	4	41	4,100	9	4,130	3,060	6	9
Ocean Coal Co., ...		....	......	10	2,250	2,250	......	......	......	21	16	2,575	2	775	600	6	2
New York and Cleveland Gas Coal Co., ...		....	......	7	1,190	1,190	......	......	......	3	3	675	6	2,030	1,237	2	......
Penn Gas Coal Co., ...		....	......	6	1,508	1,508	......	1	4	2	9	1,602	7	7,200	3,700	8	7
Pittsburgh and Baltimore Coal Co., ...		....	......	12	1,800	1,800	......	......	......	8	9	2,160	3	957	957	3	......
Manor Gas Coal Co., ...		....	......	10	1,200	1,200	......	......	......	4	6	1,400	8	6,000	3,200	2	......
Pittsburgh-Westmoreland Coal Co., ...		4	160	7	1,000	1,160	......	......	......	......	6	840	6	1,250	540	3	......
W. B. Skelly Coal Co., ...		....	......	3	450	450	......	......	......	3	2	400	......	......	......	2	......
Export Coal Co., ...		....	......	2	200	200	......	......	......	......	3	151	4	500	200	1	......
Adamsburg Gas Coal Co., .		....	......	2	150	150	......	......	......	......	2	60	2	500	400	......	......
Bixler Coal and Coke Co., .		....	......	....	....	....	......	......	......	......	......	......	......	......	......	†3	......
Westmoreland Gas Coal Co.		....	......	....	....	....	......	......	......	......	*1	......	......	......	......	†1	......
Totals, ...	....	4	160	111	17,428	17,588	2	1	11	57	129	18,306	57	31,069	18,970	45	23

*Electrically driven rope haulage engine.
†Power supplied by an electric company.

TABLE 3.—Number of Each Class of Employes Inside and Outside of Mines

Names of Operators	County	Inside												Outside								Grand total inside and outside
		Mine foremen	Assistant mine foremen	Fire bosses	Miners	Machine runners	Machine loaders	Machine scrapers	Drivers and runners	Doorboys and helpers	Company men	All other employes	Total inside	Superintendents	Foremen	Blacksmiths and carpenters	Engineers and firemen	Coke employes	Bookkeepers and clerks	All other employes	Total outside	
Westmoreland Coal Co.,	Westmoreland,	5	10	18	535	110	690	....	91	....	117	93	1,669	3	....	14	25	....	4	165	211	1,880
Keystone Coal and Coke Co.		5	6	14	517	29	367	29	96	8	97	46	1,214	5	4	21	25	....	8	142	205	1,419
Ocean Coal Co.,		2	6	8	125	31	411	31	37	3	87	50	791	1	2	15	20	....	4	73	115	906
New York and Cleveland Gas Coal Co.,		3	6	2	807	....	......	....	50	18	42	....	928	2	1	10	8	....	4	69	94	1,022
Penn Gas Coal Co.,		2	2	9	161	20	231	20	56	7	66	....	574	2	....	10	17	....	4	72	105	679
Pittsburgh and Baltimore Coal Co.,		2	6	5	100	17	242	17	66	1	46	8	510	2	3	12	15	....	4	41	77	587
Manor Gas Coal Co.,		1	1	4	98	20	135	....	24	9	39	....	331	1	1	4	9	....	1	22	38	369
Pittsburgh-Westmoreland Coal Co.,		2	1	6	64	23	235	19	38	7	7	32	434	2	2	6	8	....	2	44	64	498
W. B. Skelly Coal Co.,		1	....	....	15	3	55	3	9	....	6	....	92	1	....	2	2	....	1	7	13	105
Export Coal Co.,		1	....	....	31	2	28	2	5	....	5	....	74	1	....	2	3	....	....	5	11	85
Adamsburg Gas Coal Co.,		1	....	....	57	....	......	....	6	....	6	....	70	1	....	1	3	....	....	5	10	80
Bixler Coal and Coke Co.,		1	....	....	30	....	......	....	4	....	2	....	37	....	....	1	....	18	....	....	19	56
Westmoreland Gas Coal Co.,		1	....	....	21	....	......	....	3	1	2	....	28	1	1	2	....	25	....	....	29	57
Totals,		27	38	66	2,561	255	2,394	121	485	54	522	229	6,752	22	14	100	135	43	32	645	991	7,743

TABLE 3.—Part 2

Names of Operators	County	Average Number of Days Worked												
		January	February	March	April	May	June	July	August	September	October	November	December	Total
Westmoreland Coal Co.,	Westmoreland.	26	22	22	25	26	25	26	26	26	26	25	24	299
Keystone Coal and Coke Co.,		26	22	22	24	26	25	26	26	26	27	24	19	293
Ocean Coal Co.,		27	23	25	25	26	25	26	26	26	27	24	26	306
New York and Cleveland Gas Coal Co.,		22	16	16	19	21	21	23	20	20	20	20	13	231
Penn Gas Coal Co.,		26	20	23	22	26	25	26	26	25	24	25	25	293
Pittsburgh and Baltimore Coal Co.,		23	19	22	20	24	22	19	23	22	20	18	17	249
Manor Gas Coal Co.,		27	21	23	22	26	25	26	26	25	27	25	25	298
Pittsburgh-Westmoreland Coal Co.,		24	19	20	24	25	23	24	24	24	25	24	22	278
W. B. Skelly Coal Co.,		23	15	23	22	25	24	24	23	23	24	20	15	261
Export Coal Co.,		26	22	25	26	25	25	25	25	24	26	25	26	300
Adamsburg Gas Coal Co.,		25	22	25	25	25	25	24	25	25	25	20	26	292
Bixler Coal and Coke Co.,		27	24	25	26	27	25	26	26	25	28	23	25	307
Westmoreland Gas Coal Co.,		24	23	25	24	25	21	20	......	2	25	24	23	236

TABLE 4.—Fatal Accidents Inside and Outside of Mines

Date of accident		Name of Person	Nationality	Occupation	Age	Married or single	Number of widows	Number of orphans	Name of Mine	County	Nature and Cause of Accident in Brief
Jan.	8	John Dulachek, ...	Austrian, ..	Loader, ...	25	M.	1	2	Ocean No. 1, ...	Westmoreland.	Electrocuted by coming in contact with the trolley wire on the main haulage road, while trying to get into the front car of the man trip that conveys the men to the shaft bottom at the end of the shift. The trip was moving and had not reached the place where the men board the cars.
	10	Ivan Orlavic, ...	Horwat, .	Driver, ...	23	S.	....	....	Westmoreland Shaft.		Instantly killed by being caught between the rib of the main haulage road and a wrecked trip of loaded cars. He was riding on the bumpers of the first car when the spreader stick in some way caught between the bridle rod cover at a switch and the bottom of the car and derailed it.
	23	Enoch Clawson, ...	Swedish....	Loader, ...	30	M.	1	2	Arona, ...		Instantly killed by a fall of slate in pillar workings. A cut of coal was standing in one piece where it had settled down. He stuck his shovel under the coal when it moved and a loose piece of slate slid over the coal and struck him on the head, crushing his skull.
	25	Spurgeon A. Brinker,.	American. .	Assistant foreman.	43	M.	1	....	Star, ...		Fatally injured by runaway empty cars on slope. The cars ran away from the tipple and passed the safety blocks at the top. Died in the hospital next day. The top man was negligent.
Feb.	20	Dominick Villinger, ..	Italian, ...	Laborer, ...	48	M.	1	3	Edna No. 2, ...		Killed by mine car on supply track. As he stepped off the front end of a trip of cars he was dropping down a grade he fell in front of the moving cars. Outside.
March	1	John Rippert, ...	Austrian, ...	Loader, ...	26	M.	1	1	Ocean No. 1, ...		Killed by fall of slate at face of room.

TABLE 4—Continued

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Number of widows	Number of orphans	Name of Mine	County	Nature and Cause of Accident in Brief
March 6	William Langley, ...	English, ...	Company man,	43	M.	1	2	Penn Gas No. 5, .	Westmoreland.	Killed by being run over by a trip of loaded cars on the main haulage slope. He and another man were making repairs on the slope and as the trip approached his partner took refuge in a shelter hole. Langley remained on the track until the trip ran over him. He was within ten feet of the shelter hole, but made no effort to escape.
22	Mike Charkin, ...	Hungarian,	Miner, ...	24	S.	....	....	Criterion, ...		Fatally injured by fall of roof while drawing timber in pillar workings. The roof fell when a post was knocked loose.
April 10	Paul Tekelly, ...	Hungarian,	Miner, ...	27	M.	1	2	Gress, ...		Fatally injured by fall of slate while drawing entry stumps. He did not have a sufficient number of posts set under the slate. The mine foreman had directed him to set a post which he had lying ready close to the face. He promised to set it at once but did not do so. While partners were pleading with him to make himself safe, and while one of them urged him to come out from under the slate it fell. Died April 14.
22	Frank Shoroloage, ...	Horwat, ...	Miner, ...	34	S.	....	.....	Arona, ...		Neck broken by fall of coal at face of rib. While cleaning away dirt preparatory to beginning to undermine the coal a slab rolled over and crushed him against the side of a car.
May 1	Fred Kurmorkovic, ..	Polish, ...	Laborer, ...	41	S.	....	....	Keystone Shaft, .		Instantly killed by being crushed between a loaded car and a pile of rock. He had just opened a switch on the main motor road to get his car out of the chute he was working in, when he noticed that the car was off the track. He evidently forgot about opening the switch and proceeded to put the car back on the track. A compressed air haulage motor ran into the open switch and struck the car while he was between it and the pile of rock.

May	13	Jesse Collino, ...	Italian, ...	Company man,	42	M.	1	5	Edna No. 2, ...	Westmoreland.	Fatally injured by being caught between a derailed loaded car and rib at the shaft bottom. He died in a few hours.
	14	Tom Como, ...	Italian, ...	Machine scraper.	35	S.	....	....	Sewickley, ...		Fatally injured by a fall of coal and slate at face of room. A puncher machine was being used to cut the room when a mass of coal and slate became loose and fell on him. He died four hours later in a hospital.
	21	Frank Youkobovic, ...	Russian, ...	Miner, ...	55	M.	1	1	Export No. 2, ...		Fatally injured by having leg crushed below the knee between the bumpers of two cars, while taking an empty car into the mouth of room. He died from shock and loss of blood.
July	7	Thomas Dewinker, ...	Austrian, ...	Miner, ...	55	M.	1	1	Edna No. 2, ...		Electrocuted by picking up the end of a broken wire lying on the entry. He was breathing when found and some of his friends tried to resuscitate him by the Sylvester method, but forgot to pull his tongue out.
Aug.	4	Patrick O'Brien, ...	English, ...	Company man,	43	M.	1	9	Export No. 2, ...		Instantly killed by fall of roof he was taking down while grading a new motor road on the main entry.
	9	Clement Ellios, ...	Lithuanian,	Loader, ...	37	M.	1	1	Edna No. 2, ...		Fatally injured by being struck in the stomach by a slate post he was knocking out.
Sept.	12	Frank Gradischek, ..	Austrian, ...	Loader, ...	38	M.	1	3	Ocean No. 1, ...		Fatally injured by having right leg crushed by fall of slate at face of entry. No precautions had been taken to prevent it from falling. Died next day.
Oct.	20	Joseph Cappa, ...	Italian, ...	Driver, ...	19	S.	....	....	Delmont No. 1, ...		Fatally injured about the head and neck by being crushed between the corners of two loaded cars as they were passing around a sharp curve.
	22	Dan Turkovitch, ...	Horwat, ...	Miner, ...	24	S.	....	....	Denmark, ...		Killed by fall of roof at the face of pillar while loading a car. The place seemed to be well timbered.
	24	Adam Sekola, ...	Polish, ...	Company man,	30	M.	1	3	Ocean No. 1, ...		Fatally injured by fall of roof on main entry.
	29	Daniel Anocletto, ...	Italian.	Loader, ...	35	S.	....	....	Penn Gas No. 2, ..		Killed by fall of slate at face of room. There were plenty of posts lying under the slate.
Nov.	4	Noah Swaldswater, ...	American, ..	Miner, ...	17	S.	....	....	Ocean No. 2, ...		Instantly killed by fall of slate near face of room. Victim was working with his father. They had just made a small hole through the rib into the next room. Against the orders of his father the boy went through the hole just as a piece of slate, weighing about thirty pounds, fell. It struck him on the back of the neck.
	22	Joe Penk, ...	Austrian, ...	Greaser, ...	17	S.	....	....	Penn-Manor No. 5,		Instantly killed by being run over by a loaded mine car on haulage slope near the tipple. Outside.

TABLE 4—Continued

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Number of widows	Number of orphans	Name of Mine	County	Nature and Cause of Accident in Brief
Dec. 12	Joseph Monitas, ...	Russian, ...	Machine runner.	29	M.	1	....	Sewickley, ...	Westmoreland.	Instantly killed at face of room by fall of roof while examining it with a pick. Both were good practical miners.
	Andy Holwar, ...	Slavonian, .	Scraper, ...	35	M.	1	1			
23	Alex. Knazovic, ...	Servian,.....	Miner, ...	21	M.	1	1	Ocean No. 1, ...		Instantly killed by fall of slate in breakthrough near the face of a room. He had been told by the assistant mine foreman to stop working there and go to another place.
30	Frank Stuger, ...	Horwat, ...	Miner, ...	35	M.	1	2	Edna No. 1, ...		Fatally injured by fall of slate at face of room rib while undermining the coal.

TABLE 5.—Non-Fatal Accidents Inside and Outside of Mines

Date of accident		Name of Person	Nationality	Occupation	Age	Married or single	Name of Mine	County	Nature and Cause of Accident in Brief
Jan.	7	John Sheko, ...	Austrian, ...	Loader, ...	24	S.	Keystone Shaft, ...	Westmoreland, .	Leg broken by fall of slate at face of room.
	10	Mike Nakish, ...	Polish, ...	Trip runner, ...	26	S.	Edna No. 1, ...		Leg fractured by cars on main haulage slope.
	13	Sam Marri, ...	Slavonian, .	Loader, ...	18	S.	Sewickley, ...		Leg fractured and scalp lacerated by fall of slate at face of room.
		Frank Wacheck, ...	Hungarian,	Miner, ...	21	S.	Sewickley, ...		Right leg fractured by fall of coal at face of rib.
	27	Steve Youvanish, ...	Austrian, ...	Miner, ...	35	S.	Export No. 2, ...		Right leg broken by fall of slate at face of room.
	28	James Spano, ...	Italian, ...	Loader, ...	27	S.	Star, ...		Right leg broken by fall of coal and slate at face of room.
Feb.	6	Mike Sabo, ...	Slavonian, .	Loader, ...	27	M.	Penn Gas No. 2, ..		Leg broken by fall of slate at face of room.
	20	Horots Giffon, ...	Italian, ...	Loader, ...	28	S.	Sewickley, ...		Fracture of arm, collar bone and leg by fall of coal and slate at face of room.
	24	James Collins, ...	American, ..	Machine runner,.	48	M.	Export No. 2, ...		Compound fracture of right ankle by being caught in the chain of a mining machine while undercutting at face of room.
March	11	Charles Zeller, ...	Austrian, ...	Loader, ...	31	S.	Edna No. 1, ...		Leg broken by fall of slate at face of room.
April	3	Mike Balich, ...	Horwat, ...	Loader, ...	37	M.	Elizabeth, ...		Hand burned by electric cable he picked up.
	5	John Madic, ...	Austrian, ...	Loader, ...	29	M.	Westmoreland Shaft.		Compound fracture of leg by fall of coal and slate at face of room.
	12	George Blevy, ...	German, ...	Miner, ...	38	M.	Arona, ...		Fractured pelvis by fall of coal while drawing entry pillar.
May	8	Nick Drystalk, ...	American, ..	Miner, ...	19	S.	Gress, ...		Leg broken by fall of slate at face of room.
	17	Mike Delesandro, ...	Italian, ...	Miner, ...	36	M.	Delmont No. 3, ...		Ribs broken by fall of coal at face of rib.
	27	Joe Postavic, ...	Polish, ...	Loader, ...	30	S.	Ocean No. 1, ...		Leg broken by fall of slate at face of room.
	29	Lew Yanage, ...	Austrian, ...	Miner, ...	28	M.	Denmark, ...		Leg broken by fall of slate at face of entry.
		Thomas Motko, ...	Polish, ...	Loader, ...	37	S.	Keystone Shaft, ...		Both eyes injured by blast at face of entry.
June	7	Steve Kowatchev, ...	Slavonian, .	Loader, ...	29	M.	Keystone Shaft, ...		Left arm broken by fall of slate at face of room.

TABLE 5—Continued

Date of accident		Name of Person	Nationality	Occupation	Age	Married or single	Name of Mine	County	Nature and Cause of Accident in Brief
July	1	Stanley Lucas,	Polish,	Loader,	23	S.	Westmoreland, Shaft.	Westmoreland,	Compound fracture of leg by fall of slate at face of room.
	7	Joe Miller,	Servian,	Miner,	35	S.	Ocean No. 1,		Toes of right foot amputated, left foot crushed and left knee injured by fall of slate at face of room.
	16	Mike Hegidus,	Polish,	Driver,	27	M.	Penn Gas No. 5,		Fracture of spine by fall of roof while travelling to work on the manway.
	17	Antonio Devanancero,	Italian,	Loader,	34	M.	Ocean No. 1,		Right leg broken by fall of coal at face of room.
	23	Vita Milacovic,	Austrian,	Loader,	37	M.	Penn Gas No. 2,		Arm broken by fall of slate at face of room.
Aug.	8	Tony Gralesky,	Polish,	Miner,	49	M.	Sewickley,		Left leg broken by fall of coal at face of room.
	12	Dominick Valentine,	Italian,	Driver,	29	M.	Delmont No. 1,		Foot crushed and amputated by being crushed between some loaded cars near foot of slope.
	18	Frank Jiemba,	Polish,	Loader,	27	S.	Export No. 1,		Leg broken and ankle dislocated by falling down while carrying a piece of slate at face of room.
Sept.	6	Emil Kleid,	German,	Driver,	21	S.	Ocean No. 1,		Left hip fractured by a fall of roof on entry.
	27	Louis Pusano,	Italian,	Loader,	24	M.	Sewickley,		Fracture of left thigh by fall of slate at face of room.
Oct.	1	Joe Mozeski,	Polish,	Loader,	21	S.	Penn Gas No. 5,		Injured internally by fall of slate at face of room.
	7	John Keenan,	Irish,	Driver,	23	S.	Keystone Shaft,		Right thigh and knee bruised and left leg cut by being caught between wrecked cars on entry.
	9	Angelo Conbrusie,	Italian,	Machine scraper,	28	M.	Sewickley,		Fracture of a rib and right leg by being run over by a trip of loaded cars on entry.
	14	Casper Chicora,	Austrian,	Loader,	46	S.	Sewickley,		Broken shoulder blade by fall of coal at face of entry.
	16	John Bordner,	Austrian,	Loader,	33	M.	Keystone Shaft,		Right leg broken, right hand cut and injured internally by fall of coal in a break-through near face of entry.

Oct.	18	Julie Malinowski, ...	Polish, ...	Loader, ...	25	S.	Penn Gas No. 2, ..	Westmoreland. .	Right foot, left leg and arm badly bruised by being crushed between a compressed air haulage locomotive and the rib of main haulage road.
	21	Andy Cosenitch, ...	Austrian, ...	Loader, ...	29	S.	Keystone Shaft, ...		Right hip dislocated and large toe broken by fall of slate at the face of room.
	27	Lem Lueck, ...	Hungarian,	Miner, ...	22	S.	Edna No. 2, ...		Compound fracture of left leg by a fall of slate at face of entry.
Nov.	10	Thomas Davis, ...	American, ..	Greaser, ...	16	S.	Ocean No. 1, ...		Right foot badly scalded by walking into a pool of hot water from the bursting of a steam pipe near the shaft bottom.
	13	Charles Pasetski, ...	Austrian, ...	Loader, ...	33	M.	Ocean No. 1, ...		Right shoulder broken by being crushed between car and rib of entry.
	29	Nick Jacksitch, ...	Croatian, ..	Loader, ...	28	M.	Criterion, ...		Left leg and wrist broken by fall of slate at face of room.
Dec.	20	Charles Martz, ...	Roumanian,	Laborer, ...	31	M.	Penn Gas No. 2, ..		Injured internally by trying to get on cage after it had left the top landing. He sprang under the gate and landed on the hood after the cage had gone some distance. Outside.
	30	August Sabin, ...	Italian, ...	Machine runner, ..	27	M.	Sewickley, ...		Part of thumb and index finger blown off while trying to make a burner for a carbide lamp out of a detonator.
		Louis Strankosky, ...	Polish, ...	Miner, ...	20	S.	Ocean No. 1, ...		Leg broken by a fall of slate at face of rib.

CONDITION OF MINES

WESTMORELAND COAL COMPANY

Criterion.—Ventilation and drainage good.
Export No. 1.—Ventilation and drainage good.
Export No. 2.—Ventilation and drainage good.
Southside.—Ventilation and drainage good.
Westmoreland Shaft.—Ventilation and drainage good.

KEYSTONE COAL AND COKE COMPANY

Arona.—Ventilation good. Drainage good, except at a few places on the first flat haulage road.

Claridge.—Ventilation and drainage good.

Keystone Shaft.—Ventilation in good condition and well conducted around the working places. Drainage good.

Madison.—Ventilation and drainage good.

Sewickley.—Ventilation and drainage good.

OCEAN COAL COMPANY

Ocean No. 1.—Ventilation weak in two sections of the mine. The air currents were well conducted around the working places. Drainage good.

Ocean No. 2.—Ventilation and drainage very good throughout the mine.

NEW YORK AND CLEVELAND GAS COAL COMPANY

Delmont Nos. 1, 2 and 3.—Ventilation very good, except in some sections of No. 2 mine. Drainage good.

Lyons Run.—Ventilation and drainage good.

PENN GAS COAL COMPANY

Penn Gas No. 2.—Ventilation and drainage good.

Penn Gas No. 5.—Ventilation good, except at the face of one section. Drainage good, except on the manway.

PITTSBURGH AND BALTIMORE COAL COMPANY

Edna No. 1.—Ventilation not satisfactory. Drainage good, except in some working places and at a few places along the manway.

Edna No. 2.—Ventilation good, except in one section. Drainage good, except at a few places on the haulage roads.

MANOR GAS COAL COMPANY

Denmark.—Ventilation good. Drainage good, except in one section.

PITTSBURGH-WESTMORELAND COAL COMPANY

Penn-Manor No. 1.—Ventilation very good. Drainage good, except in a few working places.

Penn-Manor No. 5.—Ventilation good, except in one section. Drainage good.

W. B. SKELLY COAL COMPANY

Elizabeth.—Ventilation and drainage good.

EXPORT COAL COMPANY

Star.—Ventilation good. Drainage fair, considering natural conditions. It is a very wet mine.

ADAMSBURG GAS COAL COMPANY

Gress.—Ventilation and drainage good.

BIXLER COAL AND COKE COMPANY

Little Gem.—Ventilation fair. Drainage good, except in rainy weather when the haulage roads become wet and muddy. There is a very shallow cover at this mine.

WESTMORELAND GAS COAL COMPANY

Hillside. Ventilation fair. Drainage good, except in rainy weather. It is a shallow outcrop mine.

IMPROVEMENTS

WESTMORELAND COAL COMPANY

Criterion.—Built 127 brick stoppings and laid 800 feet of motor road with 40 pound steel rails.

Export No. 1.—Built 4 brick overcasts, 39 brick stoppings and 1 brick pump house. Installed one centrifugal pump of 1,000 gallons capacity per minute and one 12-ton electric haulage motor. Sunk shaft 12 feet in diameter and 108 feet deep near interior workings to make another inlet for air. Outside: Built a brick machine shop, 20 by 20 feet. A 150 K. W. generator and engine were added to the power plant.

Export No. 2.—Built 3 brick overcasts and 60 brick stoppings. Installed two gas proof short-wall mining machines. Outside: Erected a slack conveyor to carry fuel from tipple to power house bins. Built a railroad siding to the supply yard.

Westmoreland Shaft.—Built two brick and concrete overcasts and laid 1,000 feet of haulage road with 40 pound rails. Outside: Made a new slate hoist and dump to handle the refuse coming from the mine. Built one 12-room and four 4-room dwelling houses.

KEYSTONE COAL AND COKE COMPANY

Keystone Shaft.—Built a frame auditorium for amusement and recreation purposes, 36 by 80 feet. Built 3 brick overcasts, 190 permanent brick stoppings and a pump house, with stone sides and arched brick roof.

Sewickley.—Built a repair shop, 27 by 92 feet, of brick at tipple.

OCEAN COAL COMPANY

Ocean No. 1.—Built 155 brick stoppings, 7 brick pump houses, and 1 brick repair shop. Installed 100 new mine cars, 4 electric locomotives, 4 short-wall mining machines, 5 breast mining machines and 3 electric pumps. Retimbered hoisting and air shafts completely from top to bottom. Built new tipple floor and laid heavier track on it.

Ocean No. 2.—Built 5 brick overcasts and 100 brick stoppings. Installed 100 new mine cars, 5 electric locomotives, 3 short-wall mining machines, 5 breast mining machines and 3 electric pumps. A new sump was made 9 feet wide, 300 feet long and 8 feet deep. Outside: The brick boiler house was increased in size 36 by 39 feet and one Stirling boiler was installed. A blacksmith, machine and supply shop was built of brick, 35 by 85 feet. Six 10-room and two 6-room dwelling houses were built. A Cypress tank, of 40,000 gallons capacity was erected to supply water to dwelling houses.

NEW YORK AND CLEVELAND GAS COAL COMPANY

Delmont No. 1.—The bottom of the slope was timbered by building 56 brick piers, 18 inches by 24 inches by 7 feet, and placing on them 28 "I" beams, 5 inches by 12 inches by 18 feet, and also 26 cross beams, 8 inches by 14 inches by 15 feet, supported by a brick wall 120 feet long. Seven brick overcasts were built. An electric-driven car haul was installed on the slope. Outside: Laid 900 feet of trolley road to connect the supply yard with the mine tracks.

Delmont No. 2.—Built three overcasts of brick; laid 4,300 feet of motor road with 40 pound rails and 3,000 feet with 60 pound rails. Installed a Capell fan, 5 feet by 12, driven by a 75 H. P. Westinghouse electric motor. Built a fan and motor house of brick.

Delmont No. 3.—Laid 3,200 feet of motor road.

PENN GAS COAL COMPANY

Penn Gas No. 2.—Built 6 brick overcasts and 7 brick stoppings.

Penn Gas No. 5.—Built 4 brick overcasts and 14 brick stoppings.

PITTSBURGH AND BALTIMORE COAL COMPANY

Edna No. 1.—Built 3 brick overcasts and 100 concrete stoppings. Extended motor road 4,000 feet.

Edna No. 2.—Built 6 brick overcasts and 83 concrete stoppings. Two iron doors were set in concrete arches in the entry that connects with No. 1 mine. Installed one triplex pump 7 by 8 inches, driven by a 20 H. P. motor. Made a manway, 7,000 feet long, into one section of the mine. Outside: Installed a Sirocco fan, 6 feet by 8 inches, driven by an A. C. motor of 250 H. P. This fan replaced an old steam driven fan. Built a brick repair shop, 24 by 24 feet.

MANOR GAS COAL COMPANY

Denmark.—Built 4 brick overcasts and 49 brick stoppings. Installed a 10-ton and a 5-ton electric locomotive. Laid 1,800 feet of motor road, with 40 pound steel rails. Timbered 300 feet of main haulage slope. Outside: Installed a complete electric lighting system to furnish light for all the houses.

PITTSBURGH-WESTMORELAND COAL COMPANY

Penn-Manor No. 1.—Built 3 brick overcasts and 14 brick stoppings. Made a pump house fireproof by building brick walls. Replaced shaft bottom timbers with 12 inch "I" beams.

EXPORT COAL COMPANY

Star.—Made a new haulage slope; installed a new pump, having a capacity of 200 gallons per minute. A 50 H. P. boiler was added to equipment at power plant.

WESTMORELAND GAS COAL COMPANY

Hillside.—Built new tipple and made new haulage road from mine to tipple. The incline plane was replaced by a rope haulage system from a new opening of the mine to the new tipple. The railroad tracks were reconstructed to permit of loading coal from tipple. The mine can now ship either coal or coke.

PROSECUTIONS FOR VIOLATION OF THE MINING LAWS

January 7.—Enoch Butch, miner, Keystone Shaft mine, Keystone Coal and Coke Company. Charge: Carrying smokers' articles into locked safety lamp section. Plead guilty and was sentenced to pay a fine of $5.00 and costs.

January 14.—Mike Miatto, Mike Karankovic, Frank Smetak, Giovoni Susin and Louis Veichile, miners, Westmoreland Shaft mine, Westmoreland Coal Company. Charge: Riding on loaded cars and persisting in doing so after being warned. All entered a plea of guilty and were each sentenced to pay a fine of $10.00 and costs.

January 27.—Samuel Keenan, top man, Star mine, Export Coal Company. Charge: Neglecting to perform his duty at the slope. Entered a plea of guilty and was sentenced to pay a fine of $10.00 and costs.

February 15.—George Collage, miner, Arona mine, Keystone Coal and Coke Company. Charge: Passed a danger signal. Defendant admitted to $100.00 bail. May 23, bench warrant issued. August 23 bond forfeited. September 2, recognizance estreated and sent to County Commissioner's office.

February 28.—John Corso, miner, Keystone Shaft mine, Keystone Coal and Coke Company. Charge: Using coal dust to tamp holes for blasting. Plead guilty and was sentenced to pay a fine of $5.00 and costs.

February 28.—Steve Donachek, miner, Keystone Shaft mine, Keystone Coal and Coke Company. Charge: Carried pipe, tobacco and other smokers' articles into locked safety lamp section. Plead guilty and was sentenced to pay a fine of $5.00 and costs.

March 28.—Andy Swan, miner, Denmark mine, Manor Gas Coal Company. Charge: Opened a box containing powder and handled the powder while his light was on his head. Plead guilty and was fined $5.00 and costs.

May 27.—Mike Czoja, miner, Export No. 2 mine, Westmoreland Coal Company. Charge: Neglecting and refusing to remain in his working place. Wandered out on the haulage road and loosened brakes on two loaded cars, causing the cars to run down the entry. Plead guilty and was fined $10.00 and costs.

July 19.—Joe Forach, miner, Denmark mine, Manor Gas Coal Company. Charge: Removing a danger signal that had been placed at the entrance to a working place to prevent persons from entering therein. Plead guilty and was fined $10.00 and costs.

September 20.—Creston Jurensky, miner, Keystone Shaft mine, Keystone Coal and Coke Company. Charge: Using coal dust for tamping holes for blasting. Plead guilty and was sentenced to pay a fine of $5.00 and costs.

October 17.—J. M. McElroy, miner, Keystone Shaft mine, Keystone Coal and Coke Company. Charge: Carried cigarettes and other smokers' articles into locked safety lamp section. Plead guilty and was sentenced to pay a fine of $1.00 and costs.

October 25.—John Mulekus, Fred Wildsh, Ernest Sakuski and Frank Crallich, miners, Keystone Shaft mine, Keystone Coal and Coke Company. Charge: Passing a danger signal and walking on locomotive road. They plead guilty and were each fined $5.00 and costs.

November 6.—Joe Jenatin and Tony Dangelo, miners, Ocean No. 1 mine, Ocean Coal Company. Charge: Carrying pipes, matches and other smokers' articles into section of mine worked with locked safety lamps. Defendants have not yet been arrested. They cannot be found.

December 20.—John Monistka, miner, Penn-Manor No. 1 mine, Pittsburgh-Westmoreland Coal Company. Charge: Passing main danger signal at entrance to mine and going inside of mine before it had been examined by fire bosses and reported safe. Defendant arrested and gave bail for court. The case has not yet been disposed of.

MINE FOREMEN'S, ASSISTANT MINE FOREMEN'S AND FIRE BOSSES' EXAMINATIONS

The annual examination of applicants for certificates of qualification as mine foremen, assistant mine foremen and fire bosses was held at Irwin, May 6, 7 and 8. The Board of Examiners was composed of Arthur Neale, Inspector; James G. Ferguson, Superintendent, and John Walters, Miner.

There were 28 applicants for certificates of qualification as mine foremen and assistant mine foremen and 56 applicants for certificates of qualification as fire bosses.

The following persons passed a satisfactory examination and were granted certificates:

MINE FOREMEN

First Grade

Joseph Hunt, Manor.

Second Grade

Joseph P. Sleigh, Export; Albert Abram, Manor; William B. Moody, Penn Station.

ASSISTANT MINE FOREMEN

Albert Abram, Walter R. Richards, Manor; Peter D. Lawson, Joseph S. Bates, Herminie; Oliver Johnson, Rillton; Mahlon C. Woolard, Irwin; Joseph P. Sleigh, Export; Robert Ridley, Claridge.

FIRE BOSSES

James Adams, Peter McMahon, James Quinn, Robert Harrison, Ocle Yates, Darragh; John Kane, William J. O'Neil, John Gesler, Owen McGivern, John Cadzow, Ben Williams, Herminie; William H. Kifft, Robert Edmunds, John A. Plues, George M. Thompson, Henry J. VanKirk, William Yost, William J. John, Irwin; H. Albert Allshouse, John H. Cain, John Y. Brunner, Export; Michael Havey, Alfred J. Daniels, Frank P. McClain, Rillton; John B. Giron, Curtis Cook, William H. Gibboney, Arona; William Astley, Manor; Robert Coulson, Penn Station; Joseph Zahrobsky, Claridge; Charles W. Treasure, Wendel; Calvin D. Kistler, Harrison City.

TWENTIETH DISTRICT

SOMERSET COUNTY

Somerset, Pa., February 18, 1914.

Hon. James E. Roderick, Chief of Department of Mines:

Sir: In compliance with the Act of Assembly of June 9, 1911, I herewith transmit my annual report of the Twentieth Bituminous District for the year ending December 31, 1913.

The production of coal, considering the scarcity of labor the first nine months of the year and the car shortage the latter part of the year, was above expectations, exceeding the tonnage of the preceding year by 1,321,080 tons. The increase is due to the addition of Jerome Nos. 1 and 2 mines to the district and the opening of new mines.

The report contains the usual statistical tables.

Respectfully submitted,

F. W. CUNNINGHAM, Inspector.

SUMMARY OF STATISTICS

Number of mines,	100
Number of mines in operation,	88
Number of tons of coal shipped to market,	6,446,665
Number of tons used at mines for steam and heat,	171,904
Number of tons sold to local trade and used by employes,	24,897
Number of tons used in the manufacture of coke,	....
Number of tons of coal produced,	6,643,466
Number of tons of coke produced,	....
Number of coke ovens,	226
Number of coke ovens in operation,	....
Number of tons of coal produced by pick mining,	4,768,563
Number of tons produced by compressed air machines,	372,076
Number of tons produced by electrical machines,	1,502,827
Number of persons employed inside of mines,	6,239
Number of persons employed outside, including coke workers,	810
Number of persons employed at manufacture of coke,	....
Number of fatal accidents inside of mines,	24
Number of fatal accidents outside,	1
Number of non-fatal accidents inside of mines,	43
Number of non-fatal accidents outside,	2
Number of tons of coal produced per fatal accident inside,	276,811
Number of tons produced per fatal accident outside,	6,643,466
Number of tons produced per fatal accident inside and outside,	265,738
Number of persons employed per fatal accident inside,	260
Number of persons employed per fatal accident outside,	810
Number of persons employed per fatal accident inside and outside,	282
Number of persons employed per non-fatal accident inside,	145
Number of persons employed per non-fatal accident outside,	405
Number of persons employed per non-fatal accident inside and outside,	156
Number of wives made widows,	14
Number of children made orphans,	35
Number of steam locomotives used inside of mines,	....
Number of steam locomotives used outside,	1
Number of compressed air locomotives used inside,	....
Number of compressed air locomotives used outside,	....
Number of electric motors used inside,	122
Number of electric motors used outside,	....
Number of gasoline locomotives used inside,	1
Number of fans in use,	62
Number of furnaces in use,	17
Number of gaseous mines in operation,	7
Number of non-gaseous mines in operation,	81
Number of new mines opened,	19
Number of old mines abandoned,	1

TABLE A

PRODUCTION OF COAL

Names of Operators

	Tons
Consolidation Coal Company,	1,952,760
Jenner Quemahoning Coal Company,	918,259
Quemahoning Coal Company,	631,480
Brothers Valley Coal Company,	488,083
Somerset Smokeless Coal Company,	483,327
Knickerbocker Smokeless Coal Company,	241,903
Baker-Whitely Coal Company,	201,627
Somerset Mining Company,	186,700
Stauffer Quemahoning Coal Company,	182,038
Grassy Run Coal Company,	145,618
Atlantic Coal Company,	141,561
Reading Iron Company,	138,330
Enterprise Coal Company,	101,684
Keystone Coal Company,	84,611
Meyersdale Fuel Company,	69,834
Standard Quemahoning Coal Company,	56,000
Quemahoning Creek Coal Company,	55,431
Randolph Coal Company,	54,983
C. J. Rowe and Brothers,	49,703
W. A. Merrill and Company,	47,760
Hillworth Coal Company,	46,596
Graham Coal Company,	40,320
S. M. Hamilton and Company,	33,588
Elk Lick Coal Company,	31,860
John W. Wills Coal Company,	31,345
Stoner Coal Company,	31,287
Lidalia Coal Company,	27,296
Brandenburg Coal Mining Company,	26,716
Fisher Smokeless Coal Company,	22,500
Federal Coal Company,	22,455
Listonburg Coal Company,	21,370
Hocking Coal Company,	18,700
Taylor and McDonnell,	12,395
James Harding,	11,679
Boynton Coal Company,	11,500
Mountain Smokeless Coal Company,	6,953
Margaret Smokeless Coal Company,	4,213
Somerset Fuel Company,	3,250
J. A. Kirkpatrick,	3,100
Garrett Coal Company,	2,450
Ivy Ridge Coal Company,	2,201
Totals,	6,643,466

Production by Counties

Somerset,	6,643,466

TABLE B.—Fatal and non-fatal accidents inside and outside of mines; number of tons of coal produced per accident; number of persons employed; number employed per accident

Names of Operators	Fatal Accidents			Non-Fatal Accidents			Tons of coal produced per fatal accident inside	Tons of coal produced per non-fatal accident inside	Number of employes inside	Number of employes outside	Total number of employes	Number of employes inside per fatal accident	Number of employes outside per fatal accident	Number of employes inside per non-fatal accident	Number of employes outside per non-fatal accident
	Inside	Outside	Total	Inside	Outside	Total									
Consolidation Coal Co.,	7	......	7	13	......	13	278,966	150,212	1,659	208	1,867	237	....	127	....
Jenner Quemahoning Coal Co.,	4	......	4	6	......	6	229,565	153,043	71	127	842	179	....	119	....
Quemahoning Coal Co.,	......	......	......	6	......	6	....	105,247	504	64	568	....	....	84	....
Brothers Valley Coal Co.,	2	1	3	4	1	5	244,041	122,021	512	50	562	256	50	128	50
Somerset Smokeless Coal Co.,	7	......	7	4	......	4	69,047	120,832	503	93	596	72	....	126	....
Knickerbocker Smokeless Coal Co.,	......	......	......	1	......	1	....	241,903	182	14	196	....	....	182	....
Baker-Whitely Coal Co.,	......	......	......	4	......	4	....	50,407	228	20	248	....	....	57	....
Stauffer Quemahoning Coal Co.,	1	......	1	......	......	......	182,038	....	187	27	214	187	....	....	....
Enterprise Coal Co.,	......	......	......	1	......	1	....	101,684	86	6	92	....	....	86	....
Standard Quemahoning Coal Co.,	1	......	1	1	......	1	56,000	56,000	56	7	63	56	....	56	....
Quemahoning Creek Coal Co.,	......	......	......	1	......	1	....	55,431	33	7	40	....	....	33	....
Randolph Coal Co.,	1	......	1	......	......	......	54,983	....	78	5	83	78	....	....	....
W. A. Merrill and Co.,	......	......	......	......	1	1	....	....	46	4	50	....	....	....	4
Elk Lick Coal Co.,	......	......	......	1	......	1	....	31,860	41	5	46	....	....	41	....
Federal Coal Co.,	1	......	1	......	......	......	22,455	....	63	8	71	63	....	....	....
Hocking Coal Co.,	......	......	......	1	......	1	....	18,700	38	6	44	....	....	38	....
Miscellaneous Companies,	......	......	......	......	......	......	....	....	1,308	159	1,467	....	....	....	....
Totals and averages for district,	24	1	25	43	2	45	276,811	154,499	6,239	810	7,049	260	810	145	405

TABLE C.—Classification of Fatal Accidents Inside and Outside of Mines

	Months													
	January	February	March	April	May	June	July	August	September	October	November	December	Totals	Percentages
Causes of Accidents Inside														
Falls of coal, ...	....	....	....	....	....	....	....	....	....	1	....	....	1	4.17
Falls of slate, ...	1	1	....	1	....	....	....	....	....	....	....	....	3	12.50
Falls of roof, ...	....	1	1	....	1	....	1	2	3	4	....	1	14	58.33
Mine cars, ...	1	....	....	....	....	1	1	1	....	....	....	....	4	16.66
Falling into shafts, ...	....	....	....	....	....	....	....	....	....	1	....	....	1	4.17
Struck by rope, ...	....	....	....	....	....	....	....	1	....	....	....	....	1	4.17
Totals, ...	2	2	1	1	1	1	2	4	3	6	....	1	24	100.00
Causes of Accidents Outside														
Bursting of steam pipe, ...	...	....	....	....	....	....	....	....	1	....	....	....	1	100.00
Totals, ...	....	....	....	....	....	....	....	....	1	....	....	....	1	100.00
Grand totals inside and outside, ...	2	2	1	1	1	1	2	4	4	6	....	1	25	......

TABLE D.—Classification of Non-Fatal Accidents Inside and Outside of Mines

	Months													
	January	February	March	April	May	June	July	August	September	October	November	December	Totals	Percentages
Causes of Accidents Inside														
Falls of coal, ...	....	....	....	1	2	....	1	....	1	1	....	....	6	13.95
Falls of slate, ...	1	2	1	....	....	....	....	....	1	....	....	....	5	11.63
Falls of roof, ...	1	1	....	2	1	....	2	....	....	1	....	1	9	20.93
Mine cars, ...	1	3	1	1	1	....	1	1	4	....	3	2	18	41.86
Explosions of powder and dynamite, ...	....	....	....	....	....	....	....	....	....	....	1	....	1	2.33
Machinery, ...	....	....	....	....	....	1	....	....	....	....	1	....	2	4.65
Struck by rope, ...	....	....	....	....	....	1	....	1	....	....	....	....	2	4.65
Totals, ...	3	6	2	4	4	2	4	2	6	2	5	3	43	100.00
Causes of Accidents Outside														
Cars, ...	1	....	....	....	....	....	....	....	....	....	....	....	1	50.00
Struck by rope, ...	....	....	1	....	....	....	....	....	....	....	....	....	1	50.00
Totals, ...	1	....	1	....	....	....	....	....	....	....	....	....	2	100.00
Grand totals inside and outside, ...	4	6	3	4	4	2	4	2	6	2	5	3	45	......

TABLE E.—Occupations of Persons Killed or Fatally Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
Inside													
Miners,	1	2	1	1	1	1	1	2	2	5	....	1	18
Machine loaders,	....	....	....	....	....	....	....	....	1	1	....	....	2
Company men,	....	....	....	....	....	....	1	1	....	....	....	....	2
Shot firers,	1	....	....	....	....	....	....	....	....	....	....	....	1
Rope riders,	....	....	....	....	....	....	....	1	....	....	....	....	1
Totals,	2	2	1	1	1	1	2	4	3	6	....	1	24
Outside													
Engineers and firemen,	....	....	....	....	....	....	....	....	1	....	....	....	1
Totals,	....	....	....	....	....	....	....	....	1	....	....	....	1
Grand totals inside and outside,	2	2	1	1	1	1	2	4	4	6	....	1	25

TABLE F.—Occupations of Persons Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
Inside													
Miners,	2	1	1	3	3	1	3	....	2	2	2	1	21
Machine runners,	....	2	....	....	....	1	....	....	1	....	1	....	5
Machine loaders,	....	....	....	....	....	....	....	1	....	....	....	....	1
Drivers and runners,	1	1	1	1	....	....	1	....	3	....	2	1	11
Doorboys and helpers,	....	1	....	....	....	....	....	....	....	....	....	....	1
Company men,	....	....	....	....	1	....	....	1	....	....	....	....	2
Motormen,	....	1	....	....	....	....	....	....	....	....	....	....	1
Machinists,	....	....	....	....	....	....	....	....	....	....	....	1	1
Totals,	3	6	2	4	4	2	4	2	6	2	5	3	43
Outside													
Mine foremen,	1	....	....	....	....	....	....	....	....	....	....	....	1
Company men,	....	....	1	....	....	....	....	....	....	....	....	....	1
Totals,	1	....	1	....	....	....	....	....	....	....	....	....	2
Grand totals inside and outside,	4	6	3	4	4	2	4	2	6	2	5	3	45

TABLE G.—Nationality of Persons Killed or Fatally Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
American,	1	....	1	....	....	....	....	....	1	1	....	....	4
Welsh,	....	....	....	....	....	....	1	....	....	....	....	....	1
Scotch,	....	....	....	....	....	....	....	1	....	....	....	....	1
German,	....	....	....	....	....	....	....	....	1	....	....	....	1
Polish,	1	....	....	....	....	....	....	1	....	1	....	....	3
Hungarian,	....	....	....	....	....	1	1	....	....	....	....	....	2
Italian,	....	2	....	1	....	....	....	....	....	2	....	....	5
Slavonian,	....	....	....	....	....	....	....	2	1	....	....	....	3
Austrian,	....	....	....	....	1	....	....	....	....	1	....	....	2
Russian,	....	....	....	....	....	....	....	....	....	1	....	1	2
Roumanian,	....	....	....	....	....	....	....	....	1	....	....	....	1
Totals,	2	2	1	1	1	1	2	4	4	6	....	1	25

TABLE H.—Nationality of Persons Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
American,	1	1	2	....	....	....	....	1	3	....	....	1	9
English,	1	....	....	....	....	....	....	....	....	....	....	....	1
Welsh,	....	....	....	....	....	....	1	....	....	....	....	....	1
Irish,	....	....	....	....	....	....	1	....	....	....	....	....	1
German,	....	....	....	1	....	....	....	....	1	....	....	....	2
Polish,	1	3	....	....	....	2	....	....	....	....	1	....	7
Italian,	....	....	....	....	....	....	....	....	1	....	1	1	3
Slavonian,	....	2	....	2	3	....	1	1	....	....	1	1	11
Austrian,	....	....	1	....	....	....	1	....	....	1	1	....	4
Russian,	1	....	....	1	1	....	....	....	1	....	1	....	5
Servian,	....	....	....	....	....	....	....	....	....	1	....	....	1
Totals,	4	6	3	4	4	2	4	2	6	2	5	3	45

TABLE I.—Operators and mines, kind of openings, type and size of fans, size of furnaces, volume of air produced by fan or furnace per minute, number of splits of air currents and number of persons employed inside

Names of Operators and Mines	Kind of opening	Gaseous or non-gaseous	Method of ventilation	Diameter of fan in feet and inches	Width of blades in feet and inches	Depth of blades in feet and inches	Number of revolutions per minute	Water gauge developed—in inches	Name of fan	Power used	Area of furnace bars in square feet	Number of splits of air currents	Number of cubic feet of air per minute entering the mine at inlet	Total number of cubic feet of air per minute circulating in all the splits	Number of cubic feet of air per minute passing out at outlet	Number of persons employed inside
Consolidation Coal Co.																
Consolidation No. 101, ...	Drift, ...	Non-gas., .	Furnace, ..	......	......	......	......	......	....	....	64	4	26,100	18,500	27,500	75
Consolidation No. 102, ...	Drift, ...	Non-gas., .	Furnace, ..	......	......	......	......	......	....	....	56	1	27,200	9,000	28,000	80
Consolidation No. 104, ...	Drift, ...	Non-gas., .	Furnace, and Fans	......	......	......	......	......	....	....	48	..	....	....	....	...
				16.0	4.0	4.0	98	1.4	Brazil, ...	Electricity	..	11	164,000	53,500	166,000	135
				8.0	1.3	......	300	0.4	Stine, ...	Electricity						
Consolidation No. 105, ...	Drift, ...	Non-gas., .	Furnace, ..	......	......	......	......	......	....	....	48	1	12,000	4,000	12,600	15
Consolidation No. 105½, ...	Drift, ...	Non-gas., .	Fan, ...	10.0	3.0	2.5	94	0.8	Brazil, ...	Electricity, .	..	2	31,000	25,000	31,500	40
Consolidation No. 106, ...	Drift, ...	Non-gas., .	Fan, ...	8.0	1.3	......	250	0.4	Stine, ...	Electricity, .	..	2	35,000	16,500	35,200	80
Consolidation No. 108, ...	Drift, ...	Non-gas., .	Natural, ..	......	......	......	......	......	....	....	..	1	2,000	2,000	2,000	10
Consolidation No. 111, ...	Slope, ...	Non-gas., .	Fan, ...	14.0	4.0	3.5	85	0.8	Brazil, ...	Steam, ...	..	2	45,000	14,400	46,000	90
Consolidation No. 112, ...	Drift, ...	Non-gas., .	Fans, ...	12.0	3.5	3.5	110	0.8	Brazil, ...	Electricity, .		5	75,250	23,800	76,000	150
				7.0	1.2	......	300	0.2	Stine, ...	Electricity, .						
Consolidation No. 113, ...	Drift, ...	Non-gas., .	Fan, ...	16.0	4.0	4.0	70	0.6	Brazil, ...	Steam, ...	..	1	37,500	7,000	38,000	40
Consolidation No. 114, ...	Drift, ...	Non-gas., .	Fan, ...	12.0	4.0	3.0	80	0.8	Brazil, ...	Steam, ...	..	3	34,700	16,400	35,600	100
Consolidation No. 115, ...	Drift, ...	Non-gas., .	Fan, ...	12.0	4.0	3.0	83	0.4	Brazil, ...	Steam, ...	..	2	45,600	9,000	45,900	50
Consolidation No. 117, ...	Slope, ...	Non-gas., .	Fan, ...	16.0	4.0	4.0	90	1.3	Brazil, ...	Steam, ...	..	2	64,800	17,500	66,000	40
Consolidation No. 118, ...	Drift, ...	Non-gas., .	Fans, ...	18.0	6.0	8.5	80	1.0	Capell, ...	Steam, ...		6	167,640	91,300	170,000	270
				14.0	5.0	6.0	82	1.0	Lepley, ...	Electricity, .						
Consolidation No. 119, ...	Slope, ...	Non-gas., .	Fan, ...	20.0	6.0	9.0	76	2.5	Jeffrey, ...	Steam, ...	..	5	90,000	39,200	91,500	250
Consolidation Nos. 120 and 121, ...	Drift, ...	Gaseous, ..	Fan, ...	20.0	8.0	8.0	70	1.4	Lepley, ...	Steam, ...	..	8	136,800	81,100	140,000	300
Jenner Quemahoning Coal Co.																
Jerome No. 1, ...	Shaft, ...	Gaseous, ..	Fan, ...	20.0	8.0	9.5	88	1.6	Capell, ...	Steam, ...		5	87,260	64,100	90,000	303
Jerome No. 2, ...	Shaft, ...	Non-gas., .										6	99,300	59,700	102,000	245

Quemahoning Coal Co.																
Ralphton No. 1, ...	Slope, ...	Non-gas., .	Fan, ...	16.0	8.0	4.0	88	1.8	Brazil, ...	Steam,......	..	3	70,000	17,000	71,800	150
Ralphton No. 3, ...	Drift, ...	Non-gas., .	Fan, ...	7.0	1.8	......	350	1.0	Stine, ...	Electricity,.	..	5	50,100	16,600	51,600	100
Ralphton No. 4, ...	Drift, ...	Non-gas., .	Fan, ...	3.5	2.0	1.0	500	0.8	Robinson, .	Electricity,.	..	2	33,600	11,000	34,800	70
Ralphton No. 5, ...	Shaft,.....	Non-gas.,	Fan, ...	16.0	6.0	6.0	75	2.0	Lepley, ...	Steam,......	..	2	72,000	30,000	73,100	130
Ralphton No. 6, ...	Shaft,.....	Gaseous, ..	Fan, ...	6.0	3.0	2.5	136	0.6	Clifford, ...	Steam,......	..	2	35,000	30,000	36,700	90
Ralphton No. 7, ...	Drift, ...	Non-gas., .	Fan, ...	5.0	1.0	......	200	0.8	Stine, ...	Electricity,.	..	1	18,000	11,000	18,200	85
Ralphton No. 10, ...	Drift, ...	Non-gas., .	Furnace,..	......	......	......	......	......	....	....	42	1	13,100	10,000	14,000	40
Brothers Valley Coal Co.																
Pen Mar No. 2, ...	Shaft,.....	Non-gas., .	Fan, ...	16.0	6.0	5.0	80	1.4	Robinson, .	Steam,......	..	5	56,600	36,900	60,000	150
Pen Mar No. 3, ...	Slope, ...	Non-gas., .	Fan, ...	18.0	6.0	6.0	67	0.8	Robinson, .	Steam,......	..	4	52,500	30,500	54,000	198
Somerset Smokeless Coal Co.																
Orenda No. 2, ...	Slope, ...	Gaseous, ..	Fan, ...	9.0	5.5	......	235	5.0	Sturtevant,	Electricity,.	..	11	210,000	126,700	214,125	450
Orenda No. 3,§	Slope, ...	Gaseous, ..	Natural, ..	......	......	......	......	......	....	....	..	1	5,600	5,600	5,600	20
Orenda No. 4,§	Slope, ...	Non-gas., .	Natural, ..	......	......	......	......	......	....	....	..	..	....	....	....	8
Orenda No. 5,§	Slope, ...	Non-gas., .	Natural, ..	......	......	......	......	......	....	....	..	..	....	....	....	8
Merchants No. 3, ...	Drift, ...	Non-gas., .	Fan, ...	7.0	1.3	......	300	0.4	Stine, ...	Electricity,.	..	2	24,000	15,000	24,100	83
Knickerbocker Smokeless Coal Co																
Knickerbocker No. 2, ...	Drift, ...	Non-gas., .	Fan, ...	12.0	4.0	3.0	180	1.5	Brazil, ...	Electricity,.	..	6	42,500	39,400	44,000	85
Knickerbocker No. 3, ...	Drift, ...	Non-gas., .	Fan, ...	3.5	2.7	1.0	338	1.0	Robinson, .	Electricity,.	..	2	34,850	13 500	36,000	50
Baker-Whitely Coal Co.																
Elma No. 1, ...	Drift, ...	Non-gas., .	Fan, ...	11.0	4.0	5.0	140	0.4	Capell, ...	Steam,......	..	3	64,740	39,450	66,000	150
Elma No. 2, ...	Drift, ...	Non-gas., .	Fan, ...	8.0	1.8	......	180	0.4	Stine, ...	Electricity,.	..	1	27,000	10,000	27,180	50
Somerset Mining Co.																
Knickerbocker No. 1, ...	Drift, ...	Non-gas., .	Fan, ...	10.0	4.0	2.5	180	2.2	Jeffrey, ...	Electricity,.	..	3	52,600	30,250	54,000	140
Stauffer Quemahoning Coal Co.																
Stauffer No. 1, ...	Drift, ...	Non-gas., .	Fan, ...	13.5	5.0	......	102	1.0	Stine-Beard	Steam,......	..	5	66,375	32,500	68,500	105
Stauffer Nos. 2 and 3, ...	Drift, ...	Non-gas., .	Fan, ...	16.0	5.0	4.0	80	0.6	Brazil, ...	Steam,......	..	1	31,450	15,000	32,800	40
Grassy Run Coal Co.																
Grassy Run No. 1, ...	Drift, ...	Non-gas., .	Furnace,..	......	......	......	......	......	....	....	20	3	15,600	10,500	16,000	65
Grassy Run No. 2, ...											8	1	8,800	3,000	9,000	22
Grassy Run No. 3, ...											20	1	7,900	3,000	8,000	17
Atlantic Coal Co.																
Atlantic No. 1, ...	Slope, ...	Gaseous, ..	Fan, ...	8.0	1.3	......	365	0.9	Stine, ...	Steam,......	..	5	44,000	26,950	46,375	90
Atlantic No. 2, ...	Drift, ...	Non-gas., .	Furnace,..	......	......	......	......	......	....	....	20	1	4,450	3,100	4,500	20
Reading Iron Co.																
Reading No. 3, ...	Drift, ...	Non-gas., .	Fan, ...	16.0	4.0	4.0	98	0.8	Guibal, ...	Steam,......		3	40,700	28,000	42,100	60
Reading No. 4, ...	Drift, ...	Non-gas., .										3	34,300	16 800	35,000	50

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§New mines just opened; no means yet provided for ventilation.

TABLE I.—Continued

Names of Operators and Mines	Kind of opening	Gaseous or non-gaseous	Method of ventilation	Diameter of fan in feet and inches	Width of blades in feet and inches	Depth of blades in feet and inches	Number of revolutions per minute	Water gauge developed—in inches	Name of fan	Power used	Area of furnace bars in square feet	Number of splits of air currents	Number of cubic feet of air per minute entering the mine at inlet	Total number of cubic feet of air per minute circulating in all the splits	Number of cubic feet of air per minute passing out at outlet	Number of persons employed inside
Enterprise Coal Co.																
Ponfeigh, ...	Drift, ...	Non-gas., .	Fan, ...	12.0	3.5	3.0	110	0.9	Brazil, ...	Steam, ...	..	2	39,750	14,400	41,700	90
Keystone Coal Co.																
Glen McClarin Nos. 1 and 2	Drift, ...	Non-gas., .	Fan, ...	8.0	3.5	......	190	0.5	Buffalo-Forge	Steam, ...	..	2	29,000	18,900	30,000	70
Meyersdale Fuel Co.																
Yoder, ...	Drift, ...	Non-gas., .	Furnace, ..	......	......	......	......	......	....	....	27	3	16,000	10,000	16,250	60
Standard Quemahoning Coal Co.																
Standard Nos. 1 and 2, ..	Drift, ...	Non-gas., .	Furnace, ..	......	......	......	......	......	....	....	16	1	11,800	6,000	12,000	40
Quemahoning Creek Coal Co																
Que Creek No. 1, ...	Drift, ...	Non-gas., .	Fan, ...	5.0	1.0	......	200	0.2	American-Blower	Steam, ...	..	1	22,500	13,000	23,750	50
Que Creek No. 2, ...	Drift, ...	Non-gas., .	....	......	......	......	......	......								
Randolph Coal Co.																
Randolph, ...	Drift, ...	Non-gas., .	Fan, ...	6.0	2.7	2.5	300	0.9	Robinson, .	Steam, ...	..	1	31,200	12,000	32,000	60
C. J. Rowe and Brothers																
Hamilton, ...	Drift, ...	Non-gas., .	Fan, ...	6.0	1.2	......	175	0.3	Stine, ...	Gasoline, ...	..	2	22,800	12,500	23,000	55
Mystic No. 1, ...	Drift, ...	Non-gas., .	Furnace, ..	......	......	......	......	......	....	....	..	..	....	....	....	12

W. A. Merrill and Co.																
Enterprise No. 1, ...	Drift, ...	Non-gas., .	Fan, ...	12.0	2.5	3.0	65	0.3	Brazil, ...	Steam, ...	..	1	25,200	8,000	26,000	35
Hillworth Coal Co.																
Belmont No. 1, ...	Drift, ...	Non-gas., .	Fan, ...	6.0	1.2	......	275	0.5	Stine, ...	Gasoline, ...	..	1	22,500	10,000	23,000	50
Belmont No. 2, ...	Drift, ...	Non-gas., .	Furnace, ..	......	......	......	......	......	....	....	8	1	6,000	2,000	6,100	12
Belmont No. 3, ...	Drift, ...	Non-gas., .	Natural, ..	......	......	......	......	......	....	....	..	1	....	....	....	10
Graham Coal Co.																
Pretoria No. 2, ...	Drift, ...	Non-gas., .	Fan, ...	10.0	3.5	3.0	50	0.2	Brazil, ...	Steam, ...	..	1	20,200	11,200	20,250	20
Pretoria No. 3	Drift, ...	Non-gas., .	Fan, ...	5.0	4.0	......	130	0.5	Robinson, .	Steam, ...	..	1	28,000	10,000	28,200	30
S. M. Hamilton and Co.																
Adams, ...	Drift, ...	Non-gas., .	Fan, ...	10.0	4.0	2.0	120	0.9	Stine-Beard	Steam, ...	..	2	40,000	15,000	42,000	45
Elk Lick Coal Co.																
Beachley, ...	Drift, ...	Non-gas., .	Fan, ...	12.0	4.0	3.0	114	0.7	Brazil, ...	Steam, ...	..	1	31,200	8,500	32,000	35
John W. Wills Coal Co.																
Wills No. 2, ...	Drift, ...	Non-gas., .	Furnace, ..	......	......	......	......	......	....	....	20	1	10,000	2,000	20,700	12
Wills No. 3, ...	Drift, ...	Non-gas., .	Fan, ...	12.0	4.0	3.0	70	0.9	Brazil, ...	Steam, ...	..	1	35,000	7,000	36,000	30
Stoner Coal Co.																
Stoner Nos. 1 and 2, ...	Drift, ...	Non-gas., .	Fan, ...	4.0	1.0	......	300	0.3	Stine, ...	Gasoline, ...	..	1	11,590	11,000	12,000	20
Lidalia Coal Co.																
Anspach, ...	Drift, ...	Non-gas., .	Fan, ...	8.0	1.3	......	275	0.5	Stine, ...	Steam, ...	..	1	42,000	18,750	42,200	40
Brandenburg Coal Mining Co																
Rockwood, ...	Drift, ...	Non-gas., .	Fan, ...	16.0	4.0	4.0	80	0.5	Brazil, ...	Steam, ...	..	1	38,900	18,000	40,500	30
Fisher Smokeless Coal Co.																
Neve, ...	Slope, ...	Non-gas., .	Fan, ...	5.0	1.3	......	200	0.3	Stine, ...	Gasoline, ...	..	1	14,000	4,500	14,100	16
Federal Coal Co.																
Federal Nos. 1 and 2, ..	Drift, ...	Non-gas., .	Fan, ...	10.0	1.5	......	140	0.4	Stine, ...	Electricity, .	..	1	21,600	10,000	22,000	60
Listonburg Coal Co.																
Miller, ...	Slope, ...	Non-gas., .	Fan, ...	4.0	2.3	......	367	......	Robinson, .	Steam, ...	..	1	27,225	11,000	27,500	40
Hocking Coal Co.																
Hocking, ...	Slope, ...	Non-gas., .	Fan, ...	16.0	6.0	4.0	60	1.0	Brazil, ...	Steam, ...	..	1	54,000	10,000	55,000	21
Taylor and McDonnell																
Quality No. 1, ...	Drift, ...	Non-gas., .	Fan, ...	4.0	0.9	......	80	0.5	Robinson, .	Gasoline, ...	..	1	8,000	6,000	8,050	20
James Harding																
Margaret, ...	Drift, ...	Non-gas., .	Furnace, ..	......	......	......	......	......	....	....	4	1	4,910	4,000	5,000	21
Boynton Coal Co.																
Maust, ...	Drift, ...	Non-gas., .	Natural, ..	.....	......	......	......	......	....	....	..	1	5,600	5,600	5,600	12

TABLE I.—Continued

Names of Operators and Mines	Kind of opening	Gaseous or non-gaseous	Method of ventilation	Diameter of fan in feet and inches	Width of blades in feet and inches	Depth of blades in feet and inches	Number of revolutions per minute	Water gauge developed—in inches	Name of fan	Power used	Area of furnace bars in square feet	Number of splits of air currents	Number of cubic feet of air per minute entering the mine at inlet	Total number of cubic feet of air per minute circulating in all the splits	Number of cubic feet of air per minute passing out at outlet	Number of persons employed inside
Mountain Smokeless Coal Co. Mountain Nos. 1 and 2, ..	Drift, ...	Non-gas., .	Fan, ...	16.0	4.0	4.0	75	0.8	Brazil, ...	Steam, ...	..	3	31,680	12,560	32,000	55
Margaret Smokeless Coal Co. Landstreet, ...	Drift, ...	Non-gas., .	Fan, ...	6.0	2.7	2.8	100	0.2	Stine, ...	Steam, ...	..	1	10,000	10,000	10,000	35
Somerset Fuel Co. White Creek, ...	Drift, ...	Non-gas., .	Fan, ...	10.0	3.0	3.0	90	0.2	Brazil, ...	Gasoline, ...	..	1	12,900	9,200	13,000	20
J. A. Kirkpatrick Kirkpatrick, ...	Drift, ...	Non-gas., .	Furnace, ..	......	......	......	......	......	....	....	9	1	9,000	8,000	9,200	10
Garrett Coal Co. South Side, ...	Drift, ...	Non-gas., .	Fan, ...	10.0	3.0	3.0	60	0.8	Brazil, ...	Steam, ...	..	1	17,000	5,000	17,200	15
Ivy Ridge Coal Co. Ivy Ridge, ...	Drift, ...	Non-gas., .	*	......	......	......	......	......	....	....	..	1	6,000	3,000	6,000	10

*Ventilated by fan at Rockwood mine.

TABLE J.—Mines using coal cutting machines, power used, geological and local names of seams, thickest and thinnest seams where machines are used, and the approximate number of tons produced by machines

Names of Operators	Names of Mines	Kind of opening	Gaseous or non-gaseous	Number of mining machines used	Power used by machines	Geological and local names of seams	Average thickness in inches	Height of Seam in Inches		Approximate number of tons produced by machines
								Thickest	Thinnest	
Consolidation Coal Co.,	Consolidation No. 113,	Drift,	Non-gas.,	2	Electricity,	Barren measure,	40	44	38	36,243
	Consolidation No. 118,	Drift,	Non-gas.,	23		C. Prime,	48	52	42	175,344
	Consolidation No. 119,	Slope,	Non-gas.,	8		C. Prime,	48	58	42	66,294
	Consolidation No. 120,	Drift,	Gaseous,	26		C. Prime,	46	50	44	330,580
Totals,				59						608,461
Jenner Quemahoning Coal Co.,	Jerome No. 1,	Shaft,	Gaseous,	12	Electricity,	C. or Upper Kittanning	66	72	60	280,067
	Jerome No. 2,	Shaft,	Non-gas.,	9	Electricity,	C. or Upper Kittanning	66	72	48	219,000
Totals,				21						499,067
Quemahoning Coal Co.,	Ralphton No. 1,	Slope,	Non-gas.,	1	Electricity,	C. Prime,	44	46	40	6,795
	Ralphton No. 5,	Shaft,	Non-gas.,	2 9	Electricity, Compressed air	C. Prime,	44	46	40	135,596
	Ralphton No. 6,	Shaft,	Gaseous,	10	Compressed air,	E. or Upper Freeport	46	50	38	63,575
	Ralphton No. 7,	Drift,	Non-gas.,	2	Electricity,	E. or Upper Freeport	46	50	42	23,678
	Ralphton No. 10,	Drift,	Non-gas.,	1	Electricity,	D. or Lower Freeport	36	48	33	15,000
Totals,				25						244,643

TABLE J.—Continued

Names of Operators	Names of Mines	Kind of opening	Gaseous or non-gaseous	Number of mining machines used	Power used by machines	Geological and local names of seams	Average thickness in inches	Height of Seam in Inches		Approximate number of tons produced by machines
								Thickest	Thinnest	
Brothers Valley Coal Co.,	Pen Mar No. 2,	Shaft,	Non-gas.,	30	Compressed air,	B. Miller,	52	60	42	125,068
	Pen Mar No. 3,	Slope,	Non-gas.,	36	Electricity,	B. Miller,	52	60	42	118,061
Totals,				66						243,129
Somerset Smokeless Coal Co.,	Orenda No. 3,	Slope,	Gaseous,	1	Compressed air	C. Prime,	66	66	66	5,810
	Orenda No. 4,	Slope,	Non-gas.,	1			66	66	66	1,700
	Orenda No. 5,	Slope,	Non-gas.,	1			66	66	66	1,880
Totals,				3						9,390
Knickerbocker Smokeless Coal Co.,	Knickerbocker No. 2,	Drift,	Non-gas.,	2	Electricity,	B. Miller,	42	48	40	10,500
	Knickerbocker No. 3,	Drift,	Non-gas.,	1	Electricity,	B. Miller,	48	54	42	5,200
Totals,				3						15,700
Baker-Whitely Coal Co.,	Elma Nos. 1 and 2,	Drift,	Non-gas.,	4	Electricity,	B. Miller,	46	48	42	12,837
Somerset Mining Co.,	Knickerbocker No. 1,	Drift,	Non-gas.,	2	Electricity,	B. Miller,	48	54	42	9,800
Stauffer Quemahoning Coal Co.,	Stauffer No. 1,	Drift,	Non-gas.,	3	Compressed air,	E or Upper Freeport	41	44	36	6,546

Reading Iron Co.,	Reading No. 3,	Drift,	Non-gas.,	13	Compressed air Electricity,	C. Prime,	38	44	30	138,330
	Reading No. 4,	Drift,	Non-gas.,	5	Electricity,	E. or Upper Freeport	40	48	30	
Totals,				18						
Enterprise Coal Co.,	Ponfeigh,	Drift,	Non-gas.,	1	Electricity,	C. Prime,	48	50	33	20,000
Elk Lick Coal Co.,	Beachley,	Drift,	Non-gas.,	5	Compressed air,	C. Prime,	45	54	36	16,000
Lidalia Coal Co.,	Anspach,	Drift,	Non-gas.,	1	Electricity,	C. Prime,	42	50	36	5,000
Brandenburg Coal Mining Co.,	Rockwood,	Drift,	Non-gas.,	2	Electricity,	B. Miller,	33	48	24	23,000
Listonburg Coal Co.,	Miller,	Slope,	Non-gas.,	3	Compressed air,	C. Prime,	39	42	36	10,000
Hocking Coal Co.,	Hocking,	Slope,	Non-gas.,	1	Electricity,	C. Prime,	46	50	36	8,000
Mountain Smokeless Coal Co.,	Mountain Nos. 1 and 2,	Drift,	Non-gas.,	3	Compressed air,	C. Prime,	42	54	30	5,000
Grand totals,				220						1,874,903

TABLE 1.—Operators, Location of Mines, Railroads, etc.

Names of Operators and Mines	County	Name of General Superintendent	Post Office	Name of Superintendent	Post Office	Railroad to Mine
Consolidation Coal Co.						
Consolidation Nos. 101, 102, 103,* 104, 105, 105½, 106, ..	Somerset, ...	Samuel Steinbach, ..	Somerset, ...	A. G. Smith, ...	Meyersdale, ...	B. and O.
Consolidation Nos. 108,† 111, 114, 115, ...				Harry Phillips, ...	Rockwood, ...	B. and O.
Consolidation Nos. 109,* and 110.*				Samuel Steinbach, ..	Somerset, ...	B. and O.
Consolidation Nos. 112 and 113, ...				C. W. Hoffa, ...	Pine Hill, ...	B. and O.
Consolidation Nos. 117, 118, 119, ...				F. F. Lyon, ...	Jenners, ...	B. and O.
Consolidation Nos. 120 and 121, ...				Josiah Keely, ...	Acosta, ...	B. and O.
Jenner Quemahoning Coal Co.						
Jerome Nos. 1 and 2, ...	Somerset, ...	John Gibson, Jr., ..	Pittsburgh, First National Bank Building.	B. F. Baldwin, ...	Jerome, ...	B. and O.
Quemahoning Coal Co.						
Ralphton Nos. 1, 3, 4, 5 and 7, ...	Somerset, ...	Ralph S. Zimmerman, .	Ralphton, ...	Ralph S. Zimmerman.	Ralphton, ...	B. and O.
Ralphton No. 8,*				....	....	
Ralphton No. 6, ...				J. F. Somerville, ..	Somerset, ...	B. and O.
Ralphton No. 10, ...				J. F. Somerville, ..	Somerset, ...	Western Maryland
Brothers Valley Coal Co.						
Pen Mar Nos. 2 and 3, ..	Somerset, ...	C. F. Roy, ...	Macdonaldton, ...	....	....	B. and O.
Somerset Smokeless Coal Co.						
Orenda No. 2, ...	Somerset, ...	John Gibson, Jr., ...	Pittsburgh, ...	George Crossland...	Boswell, ...	B. and O.
Orenda Nos. 3,† 4† and 5,†				George Crossland, ..	Boswell, ...	
Merchants No. 3, ...				J. C. Trevorrow, ..	Elk Lick, ...	
Knickerbocker Smokeless Coal Co.						
Knickerbocker Nos. 2 and 3, ...	Somerset, ...	Telford Lewis, ...	Hooversville, ...	Norman Lewis, ...	Hooversville, ...	B. and O.

---

*Idle.

†New mines.

Baker-Whitely Coal Co. Elma Nos. 1 and 2,	Somerset,	Charles H. Brown,	Baltimore, Md.,	John B. Hughes,	Hooversville,	B. and O.
Somerset Mining Co. Knickerbocker No. 1,	Somerset,	Telford Lewis,	Hooversville,	Norman Lewis,	Hooversville,	B. and O.
Stauffer Quemahoning Coal Co. Stauffer Nos. 1, 2 and 3,†	Somerset,	W. V. Whiteman,	Listie,	W. V. Whiteman,	Listie,	B. and O.
Grassy Run Coal Co. Grassy Run Nos. 1, 2 and 3,*	Somerset,	Howard Meager,	Elk Lick,			B. and O.
Atlantic Coal Co. Atlantic Nos. 1 and 2,†	Somerset,	J. M. Black,	Boswell,	J. M. Black,	Boswell,	B. and O.
Reading Iron Co. Reading Nos. 3 and 4, Kimmelton,*	Somerset,			George J. Krebs,	Kimmelton,	B. and O.
Enterprise Coal Co. Ponfeigh,	Somerset,	J. B. Walker,	Garrett,	J. B. Walker,	Garrett,	B. and O.
Keystone Coal Co. Glen McClarin Nos. 1 and 2,	Somerset,	W. O. Houck,	Meyersdale,	Andrew Spence,	Meyersdale,	B. and O.
Meyersdale Fuel Co. Yoder,	Somerset,	E. O. L. Stotler,	Meyersdale,	E. O. L. Stotler,	Meyersdale,	B. and O.
Standard Quemahoning Coal Co. Standard Nos. 1 and 2,	Somerset,	Frank D. Allen,	Boswell,	Frank D. Allen,	Boswell,	B. and O.
Quemahoning Creek Coal Co. Que Creek Nos. 1 and 2,†	Somerset,	J. C. Brydon,	Somerset,			B. and O.
Randolph Coal Co. Randolph,	Somerset,	E. O. L. Stotler,	Meyersdale,	W. H. Stotler,	Meyersdale,	B. and O.
C. J. Rowe and Brothers Hamilton Mystic Nos. 1,** and 2,†	Somerset,	C. J. Rowe,	Meyersdale,	C. J. Rowe,	Meyersdale,	B. and O.
W. A. Merrill and Co. Enterprise No. 1,	Somerset,	W. A. Merrill,	Garrett,	C. A. Merrill,	Garrett,	B. and O.
Hillworth Coal Co. Belmont Nos. 1, 2† and 3,†	Somerset,			John C. Cosgrove,	Cherry Tree,	B. and O.
Graham Coal Co. Pretoria Nos. 2 and 3,	Somerset,	§§John C. Forsyth,	Clearfield,			B. and O.

†New mines.
*Idle.
**Abandoned in July.
§§Trustee in bankruptcy.

TABLE 1 —Continued

Names of Operators and Mines	County	Name of General Superintendent	Post Office	Name of Superintendent	Post Office	Railroad to Mine
S. M. Hamilton and Co. Adams,	Somerset,	Phillip A. Shaffer,	Somerset,	Phillip A. Shaffer,	Somerset,	B. and O.
Elk Lick Coal Co. Beachley,	Somerset,			C. G. Masters,	Beachley,	B. and O.
John W. Wills Coal Co. Wills Nos. 2† and 3,	Somerset,	William O. Dwyer,	Berlin,	William O. Dwyer,	Berlin,	B. and O.
Stoner Coal Co. Stoner Nos. 1 and 2.	Somerset,	H. K. Stoner,	Berlin,			B. and O.
Lidalia Coal Co. Ansbach,	Somerset,			A. J. Lowery,	Beachley,	B. and O.
Brandenburg Coal Mining Co. Rockwood,	Somerset,	William Fetters,	Rockwood,	William Fetters,	Rockwood,	B. and O.
Fisher Smokeless Coal Co. Neva,	Somerset,	James McKelvey,	Somerset,			B. and O.
Federal Coal Co. Federal Nos. 1 and 2,	Somerset,			E. K. Ream,	Hooversville,	B. and O.
Listonburg Coal Co. Miller,	Somerset,			R. A. Stoughton,	Addison,	B. and O.
Hocking Coal Co. Hocking,	Somerset,	W. O. Houck,	Meyersdale,	Henry Neale,	Garrett,	B. and O.
Taylor and McDonnell Quality No. 1,†	Somerset,	R. A. McDonnell,	Berlin,			B. and O.
James Harding Margaret,†	Somerset,	James Harding,	Elk Lick,			B. and O.
Boynton Coal Co. Maust,†	Somerset,	F. A. Maust,	Elk Lick,			B. and O.

†New mines.

Mountain Smokeless Coal Co. Mountain Nos. 1 and 2, ..	Somerset, ...	....	....	W. L. Wiltrout, ...	Casselman, ...	B. and O.
Margaret Smokeless Coal Co. Landstreet,†	Somerset, ...	Frank Dixon, ...	Hooversville, ...	Phillip M. Weigle, ..	Hooversville, ...	B. and O.
Somerset Fuel Co. White Creek,†	Somerset, ...	G. Edwin Barton, ..	Hicksville, N. Y., ...	James Napier, ...	Confluence, ...	B. and O.
J. A. Kirkpatrick Kirkpatrick,†	Somerset, ...	J. A. Kirkpatrick, ..	Listonburg, ...	....	....	B. and O.
Garrett Coal Co. South Side,†	Somerset, ...	William Kockings, ..	Meyersdale, ...	....	....	B. and O.
Ivy Ridge Coal Co. Ivy Ridge,†	Somerset, ...	J. E. Schmittle, ...	Rockwood, ...	....	....	B. and O.
Logan Smokeless Coal Co. Morrow Nos. 1* and 2,*..	Somerset, ...	....	....	....	....	B. and O.
Milford Coal Co. Milford Nos. 1* and 2,*..	Somerset, ...	....	....	....	....	B. and O.
Cumberland Basin Coal Co. Cook,*	Somerset, ...	A. Bathgate, ...	Barrellville, Md., ...	....	....	C. and P.
Huff Coal Co. Huff,*	Somerset, ...	I. T. Huff, ...	Humbert, ...	....	....	B. and O.

†New mines.
*Idle.

TABLE 2.—Number of tons of coal mined and tons of coke produced, number of days worked, number of persons employed, number killed and injured, quantity of powder, dynamite and permissible explosives used, etc.

Names of Operators and Mines	County	Number of tons of coal shipped to market	Number of tons used at mines for steam and heat	Number of tons sold to local trade and used by employes	Number of tons used in manufacture of coke	Total production of coal in tons	Total production of coke in tons	Number of coke ovens	Number of days worked	Number of employes	Number of fatal accidents	Number of non-fatal accidents	Explosives			Number of horses and mules
													Number of pounds of powder used	Number of pounds of dynamite used	Number of pounds of permissible explosives used	
Consolidation Coal Co.																
Consolidation Nos. 101 and 102,	Somerset,	125,730	572	....	....	126,302	....	30	283	134	1	1	46,100	800	....	9
Consolidation Nos. 104 and 106,		240,553	3,988	2,326	....	246,867	....	196	294	222	1	....	90,400	1,500	....	23
Consolidation Nos. 105 and 105½,		47,715	10	....	....	47,725	....	......	281	46	....	1	17,600	50	....	3
Consolidation No. 108,		968	....	141	....	1,109	....	......	118	13	....	....	....	2,800	....	....
Consolidation No. 111,		108,084	2,617	467	....	111,168	....	......	280	105	1	1	73,225	700	....	14
Consolidation No. 112,		146,901	3,245	520	....	150,666	....	......	261	172	....	....	66,100	650	....	14
Consolidation No. 113,		42,289	9	....	....	42,298	....	......	246	42	....	1	19,025	150	....	....
Consolidation No. 114,		105,486	1,615	372	....	107,473	....	......	281	115	....	1	50,325	4,200	....	14
Consolidation No. 115,		69,980	1,194	394	....	71,568	....	......	272	54	....	....	20,225	150	....	5
Consolidation No. 117,		60,725	1,860	185	....	62,770	....	......	230	47	....	....	24,350	....	....	....
Consolidation No. 118,		347,380	619	....	....	347,999	....	......	256	351	....	2	71,400	7,000	....	....
Consolidation No. 119,		255,570	14,686	2,729	....	272,985	....	......	253	249	3	5	51,000	6,500	500	....
Consolidation Nos. 120 and 121,		359,598	1,687	2,545	....	363,830	....	......	258	317	1	1	....	....	35,113	....
Totals,	....	1,910,979	32,102	9,679	....	1,952,760	....	226	......	1,867	7	13	529,750	24,500	35,613	82
Jenner Quemahoning Coal Co.																
Jerome No. 1,	Somerset,	900,570	15,620	2,069	....	918,259	....	......	269	453	1	4	90,750	2,500	......	29
Jerome No. 2,							....	......	269	389	3	2	74,250	250	......	
Totals,	....	....	....	....	....	....	....	......	......	842	4	6	165,000	2,750	....	29

Quemahoning Coal Co.																
Ralphton No. 1, ...	Somerset, ...	129,601	9,636	2,051	....	141,288	....	......	286	125	....	1	35,000	800	....	....
Ralphton No. 3, ...		172,498	....	....	....	172,498	....	......	285	112	....	1	50,000	900	....	....
Ralphton No. 4, ...		71,681	....	....	....	71,681	....	......	290	51	....	1	17,000	400	....	....
Ralphton No. 5, ...		135,595	....	....	....	135,595	....	......	275	119	....	....	43,000	600	....	8
Ralphton No. 6, ...		56,895	5,500	1,180	....	63,575	....	......	248	91	....	1	....	500	15,000	8
Ralphton No. 7, ...		15,500	8,178	....	....	23,678	....	......	270	31	....	....	5,000	300	....	....
Ralphton No 10, ...		22,365	580	220	....	23,165	....	......	230	39	....	2	4,000	75	....	2
Totals, ...	....	604,135	23,894	3,451	....	631,480	....	......	......	568	....	6	154,000	3,575	15,000	13
Brothers Valley Coal Co.																
Pen Mar No. 2, ...	Somerset, ...	212,210	18,480	136	....	230 826	....	......	283	249	....	2	21,200	500	....	2
Pen Mar No. 3, ...		235,786	20,604	867	....	257,257	....	......	279	313	3	3	23,500	5,500	....	....
Totals, ...	....	447,996	39,084	1,003	....	488,083	....	......	......	562	3	5	44,700	6,000	....	2
Somerset Smokeless Coal Co.																
Orenda No. 2, ...	Somerset, ...	383,570	22,118	1,909	....	407,597	....	......	288	452	7	4	....	....	46,800	35
Orenda No. 3, ...		4,810	850	150	....	5,810	....	......	160	37	....	....	1,740	500	....	4
Orenda No. 4, ...		938	750	12	....	1,700	....	......	160	16	....	....	510	500	....	1
Orenda No. 5, ...		1,850	....	30	....	1,880	....	......	160	15	....	....	560	500	....	1
Merchants No. 3, ...		64,964	1,325	51	....	66,340	....	......	240	76	....	....	20,000	500	....	7
Totals, ...	....	456,132	25,043	2,152	....	483,327	....	......	......	596	7	4	22,810	2,000	46,800	48
Knickerbocker Smokeless Coal Co.																
Knickerbocker No. 2, ..	Somerset, ...	134,270	....	511	....	134,781	....	......	234	105	....	....	14,900	250	....	....
Knickerbocker No. 3, ..		107,092	....	30	....	107,122	....	......	236	91	....	1	12,000	3,000	....	....
Totals, ...	....	241,362	....	541	....	241,903	....	......	......	196	....	1	26,900	3,250	....	....
Baker-Whitely Coal Co.																
Elma Nos. 1 and 2, ...	Somerset, ...	197,077	3,650	900	....	201,627	....	......	298	248	....	4	46,488	260	....	....
Somerset Mining Co.																
Knickerbocker No. 1, ..	Somerset, ...	182,266	4,232	202	....	186,700	....	......	250	148	....	....	20,200	150	....	....
Stauffer Quemahoning Coal Co.																
Stauffer No. 1, ...	Somerset, ...	123,222	3,367	887	....	127,476	....	......	253	150	1	....	30,275	1,500	....	2
Stauffer Nos. 2 and 3,..		52,830	1,678	54	....	54,562	....	......	308	64	....	....	5,725	4,500	....	8
Totals, ...	....	176,052	5,045	941	....	182,038	....	......	......	214	1	....	36,000	6,000	....	10
Grassy Run Coal Co.																
Grassy Run No. 1, ...	Somerset, ...	99,746	....	....	....	99,746	....	......	281	83	....	....	35,000	....	....	5
Grassy Run No. 2, ...		22,936	....	....	....	22,936	....	......	281	24	....	....	8,750	....	....	2
Grassy Run No. 3, ...		22,936	....	....	....	22,936	....	......	281	23	....	....	8,750	....	....	2
Totals, ...	....	145,618	....	....	....	145,618	....	......	......	130	....	....	52,500	....	....	9

TABLE 2.—Continued

Names of Operators and Mines	County	Number of tons of coal shipped to market	Number of tons used at mines for steam and heat	Number of tons sold to local trade and used by employes	Number of tons used in manufacture of coke	Total production of coal in tons	Total production of coke in tons	Number of coke ovens	Number of days worked	Number of employes	Number of fatal accidents	Number of non-fatal accidents	Explosives			Number of horses and mules
													Number of pounds of powder used	Number of pounds of dynamite used	Number of pounds of permissible explosives used	
Atlantic Coal Co.																
Atlantic No. 1, ...	Somerset, ...	125,894	5,471	360	....	131,725	....	......	234	111	....	....	....	....	24,000	12
Atlantic No. 2, ...		9,565	150	121	....	9,836	....	......	125	56	....	....	1,200	200	....	6
Totals, ...	....	135,459	5,621	481	....	141,561	....	......	......	167	....	....	1,200	200	24,000	18
Reading Iron Co. Reading Nos. 3 and 4,..	Somerset, ...	132,789	5,375	166	....	138,330	....	......	279	129	....	....	22,600	1,199	....	....
Enterprise Coal Co. Ponfeigh, ...	Somerset, ...	99,596	1,305	783	....	101,684	....	......	281	92	....	1	23,000	....	....	....
Keystone Coal Co. Glen McClarin Nos. 1 and 2, ...	Somerset, ...	84,197	414	....	....	84,611	....	......	277	100	....	....	24,400	500	....	12
Meyersdale Fuel Co. Yoder, ...	Somerset, ...	69,834	....	....	....	69,834	....	......	215	75	....	....	31,250	....	....	9
Standard Quemahoning Coal Co. Standard Nos. 1 and 2,.	Somerset, ...	55,800	200	....	....	56,000	....	......	312	63	1	1	14,000	....	....	6
Quemahoning Creek Coal Co. Que Creek Nos. 1 and 2, ...	Somerset, ...	54,689	517	225	....	55,431	....	......	261	40	....	1	18,025	2,370	....	....

Randolph Coal Co. Randolph, ...	Somerset, ...	54,500	300	183	....	54,983	....	......	242	83	1	....	13,100	....	....	7
C. J. Rowe and Brothers Hamilton, ...	Somerset, ...	48,317	....	....	....	48,317	....	......	237	73	....	....	15,000	....	....	6
Mystic No. 1, ...		1,386	....	....	....	1,386	....	......	115	12	....	....	500	....	....	1
Totals, ...	....	49,703	....	....	....	49,703	....	......	......	85	....	....	15,500	....	....	7
W. A. Merrill and Co. Enterprise No. 1, ...	Somerset, ...	47,585	75	100	....	47,760	....	......	262	50	....	1	23,650	....	....	5
Hillworth Coal Co. Belmont No. 1, ...	Somerset, ...	41,596	....	....	....	41,596	....	......	246	50	....	....	16,000	....	....	8
Belmont Nos. 2 and 3,..		5,000	....	....	....	5,000	....	......	129	15	....	....	1,500	....	....	2
Totals, ...	....	46,596	....	....	....	46,596	....	......	......	65	....	....	17,500	....	....	10
Graham Coal Co. Pretoria Nos. 2 and 3,..	Somerset, ...	37,820	2,500	....	....	40,320	....	......	197	51	....	....	3,000	....	....	2
S. M. Hamilton and Co. Adams, ...	Somerset, ...	31,731	1,226	631	....	33,588	....	......	274	58	....	....	3,000	....	....	5
Elk Lick Coal Co. Beachley, ...	Somerset, ...	31,000	500	360	....	31,860	....	......	234	46	....	1	3,750	400	....	4
John W. Wills Coal Co. Wills No. 2, ...	Somerset, ...	1,000	70	....	....	1,070	....	......	62	11	....	....	500	....	....	1
Wills No. 3, ...		30,000	275	....	....	30,275	....	......	265	52	....	....	11,200	....	....	5
Totals, ...	....	31,000	345	....	....	31,345	....	......	......	63	....	....	11,700	....	....	6
Stoner Coal Co. Stoner Nos. 1 and 2, ..	Somerset, ...	30,824	....	463	....	31,287	....	......	222	31	....	....	11,500	....	....	5
Lidalia Coal Co. Anspach, ...	Somerset, ...	26,260	1,036	....	....	27,296	....	......	274	44	....	....	8,000	....	....	....
Brandenburg Coal Mining Co. Rockwood, ...	Somerset, ...	26,266	450	....	....	26,716	....	......	218	41	....	....	....	....	2,000	....
Fisher Smokeless Coal Co. Neva, ...	Somerset, ...	22,000	500	....	....	22,500	....	......	220	23	....	....	7,500	....	....	2
Federal Coal Co. Federal Nos. 1 and 2,..	Somerset, ...	22,455	....	....	....	22,455	....	......	246	71	1	....	7,500	2,120	....	14
Listonburg Coal Co. Miller, ...	Somerset, ...	19,770	1,250	350	....	21,370	....	......	217	42	....	....	860	300	....	4

TABLE 2.—Continued

Names of Operators and Mines	County	Number of tons of coal shipped to market	Number of tons used at mines for steam and heat	Number of tons sold to local trade and used by employes	Number of tons used in manufacture of coke	Total production of coal in tons	Total production of coke in tons	Number of coke ovens	Number of days worked	Number of employes	Number of fatal accidents	Number of non-fatal accidents	Explosives			Number of horses and mules
													Number of pounds of powder used	Number of pounds of dynamite used	Number of pounds of permissible explosives used	
Hocking Coal Co. Hocking, ...	Somerset, ...	17,500	1,105	95	....	18,700	....	......	215	44	....	1	4,250	....	....	....
Taylor and McDonnell Quality No. 1, ...	Somerset, ...	12,333	....	62	....	12,395	....	......	189	24	....	....	3,000	....	....	2
James Harding Margaret, ...	Somerset, ...	11,679	....	....	....	11,679	....	......	219	15	....	....	2,500	....	....	1
Boynton Coal Co. Maust, ...	Somerset, ...	11,500	....	....	....	11,500	....	......	246	15	....	....	4,500	....	....	2
Mountain Smokeless Coal Co. Mountain Nos. 1 and 2,.	Somerset, ...	6,703	250	....	....	6,953	....	......	68	38	....	....	4,400	....	....	3
Margaret Smokeless Coal Co. Landstreet, ...	Somerset, ...	4,138	75	....	....	4,213	....	......	58	39	....	....	1,825	....	....	5
Somerset Fuel Co. White Creek, ...	Somerset, ...	3,150	40	60	....	3,250	....	......	60	32	....	....	2,800	....	....	3
J. A. Kirkpatrick Kirkpatrick, ...	Somerset, ...	3,100	....	....	....	3,100	....	......	95	12	....	....	1,000	....	....	1

Garrett Coal Co. South Side, ...	Somerset, ...	2,300	150	....	....	2,450	....	......	64	28	....	....	1,100	....	....	1
Ivy Ridge Coal Co. Ivy Ridge, ...	Somerset, ...	2,201	....	....	....	2,201	....	......	60	12	....	....	500	....	....	1
Grand totals, ...	....	6,446,665	171,904	24,897	....	6,643,466	....	226	......	7,049	25	45	1,885,258	55,574	123,413	328

TABLE 2—Part 2

Names of Operators	County	Number of Boilers					Locomotives				Number of steam engines of all classes	Total horse power	Number of pumps delivering water to surface	Capacity in gallons per minute	Quantity delivered to surface per minute—gallons	Number of electric dynamos	Number of air compressors
		Cylindrical	Horse power	Tubular	Horse power	Total horse power	Gasoline	Steam	Air	Electric							
Consolidation Coal Co.,	Somerset,	......	......	23	4,705	4,705	....	....	....	40	18	6,260	25	7,635	6,770	11	3
Jenner Quemahoning Coal Co.,		......	......	12	1,800	1.800	....	....	....	19	8	1,675	1	750	100	4	1
Quemahoning Coal Co.,		8	1,050	8	1,075	2,125	....	....	....	13	12	3,150	7	1,740	1,150	4	2
Brothers Valley Coal Co.,		10	1,300	5	1,500	2,800	....	....	....	10	9	2,800	4	1,800	1,800	4	6
Somerset Smokeless Coal Co.,		......	......	13	2,906	2,906	....	....	....	13	10	3,750	7	3,100	1,750	4	4
Knickerbocker Smokeless Coal Co.,		......	......	....	....	....	....	....	....	5	......	....	....	....	....	......	......
Baker-Whitely Coal Co.,		......	......	4	600	600	....	....	....	4	2	650	....	....	....	2	......
Somerset Mining Co.,		......	......	....	....	....	....	....	....	3	......	....	....	....	....	......	......
Stauffer Quemahoning Coal Co.,		......	......	6	700	700	....	....	....	3	7	655	2	750	300	1	1
Grassy Run Coal Co.,		......	......	....	....	....	....	1	....	....	......	....	....	....	....	......	......
Atlantic Coal Co.,		6	530	....	....	530	....	....	....	....	5	360	3	1,000	800	......	1
Reading Iron Co.,		......	......	2	787	787	....	....	....	4	5	500	2	500	500	2	3
Enterprise Coal Co.,		......	......	3	330	330	....	....	....	3	2	300	....	....	....	1	......
Keystone Coal Co.,		......	......	2	250	250	....	....	....	....	2	185	....	....	....	......	......
Standard Quemahoning Coal Co.,		......	......	1	20	20	....	....	....	....	1	20	....	....	....	......	......
Quemahoning Creek Coal Co.,		......	......	1	50	50	1	....	....	....	1	9	3	150	90	......	......
Randolph Coal Co.,		......	......	1	80	80	....	....	....	....	1	85	1	200	100	......	......
W. A. Merrill and Co.,		1	30	....	....	30	....	....	....	....	1	40	....	....	....	......	......
Graham Coal Co.,		......	......	3	210	210	....	....	....	1	3	140	2	500	250	1	1
S. M. Hamilton and Co.,		......	......	2	180	180	....	....	....	....	3	125	....	....	....	......	1
Elk Lick Coal Co.,		......	......	1	150	150	....	....	....	....	3	185	....	....	....	......	1
John W. Willis Coal Co.,		1	40	....	....	40	....	....	....	....	1	20	....	....	....	......	......
Lidalia Coal Co.,		......	......	2	250	250	....	....	....	1	2	150	....	....	....	1	......
Brandenburg Coal Co.,		......	......	2	300	300	....	....	....	2	2	375	....	....	....	2	......
Federal Coal Co.,		......	......	1	40	40	....	....	....	....	1	10	2	800	150	......	......

Listonburg Coal Co., ...	Somerset, ...	......	......	2	225	225	....	....	....	....	1	32	2	150	150	......	1
Hocking Coal Co., ...		......	......	4	600	600	....	....	....	1	3	585	1	250	200	1	1
Mountain Smokeless Coal Co.,		......	......	2	200	200	....	....	....	....	2	50	....	....	....	......	1
Margaret Smokeless Coal Co.,		1	35	....	....	35	....	....	....	....	1	10	....	....	....	......	......
Garrett Coal Co., ...		......	......	1	50	50	....	....	....	....	2	30	1	150	50	......	......
Totals, ...	....	27	2,985	101	17,008	19,993	1	1	....	122	108	22,091	63	18.975	14,160	38	27

TABLE 3.—Number of Each Class of Employes Inside and Outside of Mines

Names of Operators	County	Inside												Outside							Grand total inside and outside
		Mine foremen	Assistant mine foremen	Fire bosses	Miners	Machine runners	Machine loaders	Machine scrapers	Drivers and runners	Doorboys and helpers	Company men	All other employes	Total inside	Superintendents	Foremen	Blacksmiths and carpenters	Engineers and firemen	Coke employes	Bookkeepers and clerks	All other employes	Total outside	
Consolidation Coal Co.,	Somerset. ...	12	10	3	921	18	401	18	140	12	93	31	1,659	5	1	34	28	....	16	124	208	1,867
Jenner Quemahoning Coal Co.,		2	8	2	213	19	301	19	67	1	81	2	715	1	2	6	15	....	4	99	127	842
Quemahoning Coal Co.,		7	2	2	195	15	168	15	87	5	58	......	504	3	2	9	19	....	8	23	64	568
Brothers Valley Coal Co.,		2	2	....	293	8	39	8	......	....	160	......	512	1	2	4	20	....	7	16	50	562
Somerset Smokeless Coal Co.,		4	7	6	391	......	......	......	59	2	81	3	503	3	1	7	26	....	5	51	93	596
Knickerbocker Smokeless Coal Co.,		2	2	....	136	......	......	......	10	8	24	......	182	1	....	4	....	....	1	8	14	196
Baker-Whitely Coal Co.,		2	4	....	165	10	20	10	7	1	9	......	228	1	1	2	3	....	1	12	20	248
Somerset Mining Co.,		1	1	....	116	......	......	......	6	1	14	......	139	1	....	2	....	....	1	5	9	148
Stauffer Quemahoning Coal Co.,		2	....	....	135	2	16	2	6	2	21	1	187	1	....	6	4	....	2	14	27	214
Grassy Run Coal Co.,		3	....	....	100	......	......	......	16	4	....	......	123	1	3	1	1	....	1	....	7	130
Atlantic Coal Co.,		2	1	2	105	......	......	......	14	3	12	......	139	2	....	2	8	....	2	14	28	167
Reading Iron Co.,		2	....	....	......	4	75	4	......	....	17	1	103	2	....	4	4	....	2	14	26	129
Enterprise Coal Co.,		1	1	....	50	1	20	1	6	4	2	......	86	1	....	1	1	....	1	2	6	92
Keystone Coal Co.,		1	....	....	75	......	......	......	10	1	8	......	90	1	....	1	3	....	1	4	10	100
Meyersdale Fuel Co.,		1	....	....	60	......	......	......	8	....	2	......	71	1	....	....	....	....	1	2	4	75
Standard Quemahoning Coal Co.,		1	....	....	50	......	......	......	4	1	....	......	56	1	....	1	1	....	1	3	7	63
Quemahoning Creek Coal Co.,		1	....	....	29	......	......	......	2	1	....	......	33	1	....	1	2	....	1	2	7	40
Randolph Coal Co.,		1	....	....	70	......	......	......	5	1	1	......	78	1	....	1	1	....	1	1	5	83

C. J. Rowe and Brothers, ...	Somerset, ...	2	....	....	73	......	......	......	6	....	2	......	83	....	....	....	....	....	....	2	2	85
W. A. Merrill and Co.,		1	1	....	37	......	......	......	5	2	....	......	46	1	....	....	1	....	....	2	4	50
Hillworth Coal Co.,..		2	....	....	46	......	......	......	6	3	2	......	59	1	....	1	....	....	1	3	6	65
Graham Coal Co., ...		2	....	....	38	......	......	......	4	....	2	......	46	....	1	1	1	....	....	2	5	51
S. M. Hamilton and Co., ...		1	1	....	37	......	......	......	6	2	5	......	52	1	....	1	2	....	1	1	6	58
Elk Lick Coal Co.,...		1	....	....	20	2	10	......	4	2	2	......	41	1	1	1	2	....	....	....	5	46
John W. Wills Coal Co., ...		2	....	....	43	......	......	......	6	1	6	......	58	1	....	1	....	....	....	3	5	63
Stoner Coal Co., ...		1	....	....	24	......	......	......	3	....	....	......	28	1	2	....	....	....	....	....	3	31
Lidalia Coal Co., ...		1	....	....	20	1	10	1	......	1	3	......	37	....	....	1	1	....	....	5	7	44
Brandenburg Coal Mining Co., ...		1	....	....	3	2	25	2	......	....	2	......	35	....	....	1	2	....	1	2	6	41
Fisher Smokeless Coal Co., ...		1	....	....	15	......	......	......	2	....	2	......	20	1	....	....	1	....	1	....	3	23
Federal Coal Co., ...		1	....	....	45	......	......	......	7	....	10	......	63	1	....	1	2	....	1	3	8	71
Listonburg Coal Co.,..		1	1	....	15	2	10	......	4	....	1	2	36	1	....	1	2	....	....	2	6	42
Hocking Coal Co., ...		1	....	....	16	1	11	1	2	....	6	......	38	1	....	1	3	....	1	....	6	44
Taylor and McDonnell,		1	....	....	18	......	......	......	1	....	2	......	22	....	....	....	....	....	....	2	2	24
James Harding, ...		1	....	....	12	......	......	......	1	....	....	......	14	....	....	....	....	....	1	....	1	15
Boynton Coal Co., ...		1	....	....	10	......	......	......	1	....	....	......	12	1	....	....	....	....	....	2	8	15
Mountain Smokeless Coal Co., ...		1	....	....	......	2	20	2	......	3	3	......	31	1	....	....	3	....	....	3	7	38
Margaret Smokeless Coal Co., ...		1	....	....	32	......	......	......	1	....	1	......	35	....	....	....	1	....	1	2	4	39
Somerset Fuel Co., ...		1	....	....	16	......	......	......	3	1	7	......	28	1	....	1	1	....	1	....	4	32
J. A. Kirkpatrick, ...		1	....	....	9	......	......	......	1	....	....	......	11	....	....	....	....	....	....	1	1	12
Garrett Coal Co., ...		1	....	....	20	......	......	......	2	....	1	......	24	1	....	....	1	....	1	1	4	28
Ivy Ridge Coal Co., ..		1	....	....	11	......	......	......	......	....	....	......	12	....	....	....	....	....	....	....	......	12
Totals, ...		74	41	15	3,664	87	1,126	83	462	62	585	40	6,239	42	16	97	159	....	66	430	810	7,049

TABLE 3.—Part 2

Names of Operators	County	Average Number of Days Worked												
		January	February	March	April	May	June	July	August	September	October	November	December	Total
Consolidation Coal Co.,	Somerset,	21	19	21	20	20	20	21	23	23	23	22	22	255
Jenner Quemahoning Coal Co.,		23	20	25	19	25	23	24	24	24	21	21	20	269
Quemahoning Coal Co.,		22	21	22	23	23	22	22	23	23	23	22	23	269
Brothers Valley Coal Co.,		23	19	23	21	23	25	25	26	24	25	23	24	281
Somerset Smokeless Coal Co.,		24	22	24	24	23	24	13	10	10	10	10	8	201
Knickerbocker Smokeless Coal Co.,		20	18	19	21	20	20	21	18	19	22	19	18	235
Baker-Whitely Coal Co.,		24	23	25	24	26	23	26	26	25	26	25	25	298
Somerset Mining Co.,		21	19	22	20	21	20	22	22	21	23	20	19	250
Stauffer Quemahoning Coal Co.,		24	22	24	22	23	22	23	24	25	24	22	25	280
Grassy Run Coal Co.,		25	23	24	24	23	23	22	24	25	24	23	21	281
Atlantic Coal Co.,		10	9	7	8	11	11	15	18	23	23	22	22	179
Reading Iron Co.,		25	23	23	24	24	25	21	24	24	23	21	22	279
Enterprise Coal Co.,		25	22	16	21	24	24	23	25	25	26	24	26	281
Keystone Coal Co.,		23	21	20	18	22	22	25	25	25	26	25	25	277
Meyersdale Fuel Co.,		13	13	16	9	16	11	23	25	23	24	20	22	215
Standard Quemahoning Coal Co.,		27	24	26	26	26	26	27	26	26	27	25	26	312
Quemahoning Creek Coal Co.,		20	17	22	24	27	22	20	23	24	24	20	18	261
Randolph Coal Co.,		21	20	22	21	20	20	20	21	19	20	18	20	242
C. J. Rowe and Brothers,		18	19	20	6	10	22	23	12	12	11	11	12	176
W. A. Merrill and Co.,		26	20	17	19	23	24	8	25	26	25	23	26	262
Hillworth Coal Co.,		11	10	10	10	12	16	20	18	20	19	20	22	188
Graham Coal Co.,		25	23	24	20	25	24	26	25	5	......	......	......	197
S. M. Hamilton and Co.,		22	21	25	24	24	22	20	22	24	25	22	28	274
Elk Lick Coal Co.,		15	15	18	19	19	25	22	21	23	20	21	16	234
John W. Wills Coal Co.,		10	9	12	12	12	10	10	13	12	20	24	20	164
Stoner Coal Co.,		24	21	22	17	20	23	20	8	9	17	23	28	222
Lidalia Coal Co.,		24	24	25	16	24	24	25	24	23	22	20	23	274
Brandenburg Coal Mining Co.,		26	23	25	23	......	......	6	26	22	23	20	24	218
Fisher Smokeless Coal Co.,		20	20	20	15	15	25	20	10	10	25	25	15	220
Federal Coal Co.,		22	20	23	17	19	16	20	23	21	23	21	21	246
Listonburg Coal Co.,		20	19	21	20	10	......	14	19	24	25	21	24	217
Hocking Coal Co.,		25	28	15	10	15	15	18	15	15	13	25	26	215
Taylor and McDonnell,		5	10	12	16	17	18	20	10	19	18	18	17	189
James Harding,		12	14	11	8	20	20	20	16	26	20	22	20	219
Boynton Coal Co.,		15	15	20	20	15	25	10	25	25	26	25	25	246

Mountain Smokeless Coal Co.,	Somerset,	25	18	22	3	......	......	....	......	......	......	......	......	68
Margaret Smokeless Coal Co.,		......	......	......	......	......	......	....	......	......	13	19	26	58
Somerset Fuel Co.,		......	......	......	......	......	......	....	......	15	15	5	25	60
J. A. Kirkpatrick,		......	......	......	......	......	......	10	10	15	15	25	20	95
Garrett Coal Co.,		......	......	......	......	......	......	.....	......	......	15	25	24	64
Ivy Ridge Coal Co.,		......	......	......	......	......	......	.....	......	10	15	15	20	60

TABLE 4.—Fatal Accidents Inside and Outside of Mines

Date of accident		Name of Person	Nationality	Occupation	Age	Married or single	Number of widows	Number of orphans	Name of Mine	County	Nature and Cause of Accident in Brief
Jan.	2	Harrison Hart, ...	American, ..	Shot firer, ..	25	M.	1	1	Orenda No. 2, ..	Somerset,...	Instantly killed by being caught between mine car and rib while standing on the main slope. The motor was lowering a trip down the slope when a coupling uncoupled, allowing the trip of cars to run down the slope. They jumped the track at a point where he was standing.
	28	Jacob Victor, ...	Polish,.......	Miner, ...	23	S.	....	....	Consolidation No. 1-0.		Instantly killed by fall of slate at face of working place while loading a car of coal.
Feb.	3	Joseph Parlemo, ...	Italian, ...	Miner, ...	48	M.	1	3	Federal No. 1, ..		Instantly killed by fall of slate at face of working place.
	13	Louie Buchatella, ..	Italian, ...	Miner, ...	32	S.	....	....	Jerome No. 2, ..		Instantly killed by fall of roof on pillar work while setting a post.
March	22	William Smeltz, ...	American, ..	Miner, ...	35	S.	....	....	Standard No. 2, .		Instantly killed by fall of roof at face of working place.
April	15	Joe Micklet, ...	Italian, ...	Miner, ...	20	S.	....	....	Jerome No. 2, ..		Instantly killed by fall of slate at face of working place while refilling his lamp.
May	3	Angelo Aversoni, ...	Austrian, ..	Miner, ...	43	M.	1	5	Stauffer No. 1,..		Fatally injured by fall of rock at face of working place.
June	20	Victor Pashik, ...	Hungarian, .	Miner, ...	20	S.	....	....	Orenda No. 2,....		Fatally injured by loaded car running on him. He went to the bottom of a butt entry to open a trap door and told his butty to let the car loose at the face when he whistled. This was done and it is supposed that Pashik was injured in attempting to get on the car.
July	11	Peter Novak, ...	Hungarian, .	Company man.	27	S.	....	....	Orenda No. 2,..		Fatally injured by mine cars. The empty trip struck him on the slope haulage-way, where he was walking.
	17	David John Reese, ..	Welsh, ...	Miner, ...	37	M.	1	2	Orenda No. 2,..		Instantly killed by fall of roof on pillar work.

Aug.	1	John Komyak, ...	Slavonian, ..	Company man.	23	S.	....	....	Pen Mar No. 3,	Somerset, ...	Fatally injured by a rope striking him on the legs and breaking them, which was due to a sheave wheel being pulled out on a curve, allowing the rope to swing over against him. Died in the hospital, August 5.
	2	Samuel Stubbs, ...	Scotch, ...	Miner, ...	28	M.	1	....	Consolidation No. 106.		Instantly killed by fall of roof rock at face of room while picking coal.
	25	George Wogoski, ...	Slavonian, ..	Miner, ...	28	M.	1	1	Consolidation No. 119.		Instantly killed by fall of roof rock at face of entry while taking it down.
	27	John Stoklis, ...	Polish, ...	Rope rider, .	31	S.	....	....	Orenda No. 2, ..		Fatally injured by mine cars catching him between car and rib, due to rope breaking and the cars being wrecked at switch. Died in hospital, September 3.
Sept.	14	George Ringler, ...	American, ..	Fireman, ...	57	M.	1	3	Pen Mar No. 3, .		Instantly killed by bursting steam line on top of boiler, while he and another fireman were opening a valve between boiler and header line. It was opened too quick. Outside.
	16	John Maymic, ...	Slavonian, ..	Miner, ...	42	M.	1	3	Randolph, ...		Instantly killed by fall of roof rock at face of working place on pillar work.
	24	Louis Byers, ...	Roumanian,	Loader, ...	27	M.	1	....	Jerome No. 2, ..		Fatally injured by fall of roof at face of room. He fired a shot which knocked out two posts that supported a cross bar; then started to work without re-setting them when the roof fell. He died in hospital, October 4.
	30	Henry Koontz, ...	German, ...	Miner, ...	24	S.	....	....	Pen Mar No. 3, ..		Instantly killed by fall of roof on pillar work.
Oct.	8	Joe Zelinsky, ...	Polish, ...	Miner, ...	39	M.	1	2	Consolidation No. 101.		Fatally injured by fall of coal from side while picking coal at face of room.
	14	Tony Teddi, ...	Italian, ...	Miner, ...	25	M.	1	1	Consolidation No. 119.		Instantly killed by fall of rock at face of room while mining coal. The roof was faulty and poorly posted.
		Joe Distola, ...	Italian, ...	Miner, ...	22	S.	....	....			
	17	Clayton Shober, ...	American, ..	Miner, ...	29	M.	1	6	Consolidation No. 111.		Instantly killed by fall of roof rock while taking a slab of coal from the side along the main side track.
	22	Milton Miller, ...	Austrian, ..	Miner, ...	39	M.	1	8	Orenda No. 2, ..		Instantly killed by fall of roof rock at face of work on pillars.
	28	Walter Beftanic, ...	Russian, ...	Loader, ...	24	M.	1	....	Jerome No. 1, ..		Instantly killed by falling off the cage while he, with others, was being hoisted to the surface. He appeared to be trying to get something out of his ear, bending over to such extent that he got his head out over the side of the cage, when he was caught by the timbers and pulled out in cage-way and fell about 35 feet to the bottom.
Dec.	11	Charley Solibenko, ..	Russian, ...	Miner, ...	24	S.	....	....	Orenda No. 2, ..		Instantly killed by fall of roof and slate at face of entry while examining the roof preparatory to starting to work.

TABLE 5.—Non-Fatal Accidents Inside and Outside of Mines

Date of accident		Name of Person	Nationality	Occupation	Age	Married or single	Name of Mine	County	Nature and Cause of Accident in Brief
Jan.	9	Harry Naylor, ...	English, ...	Mine foreman, ...	63	M.	Enterprise No. 1, ...	Somerset, ...	Three ribs broken by mine cars running against a rail he was holding. Outside.
	22	Andrew Zucofski, ...	Polish, ...	Miner, ...	22	S.	Jerome No. 1, ...		Leg fractured and shoulder and face bruised by fall of rock on pillar work while in the act of recovering posts.
	28	Mike Bubnek, ...	Russian, ...	Runner, ...	33	M.	Jerome No. 1, ...		Back broken by being caught between roof and top of electric motor along one of the entries.
	28	James Tansbaker, ...	American, ..	Miner, ...	59	M.	Beachley, ...		Bruised about the thigh by fall of slate at face of working place.
Feb.	6	Joseph Tamchick, ...	Polish, ...	Trapper, ...	55	M.	Consolidation No. 118,.		Rib broken by mine car while in the act of jumping on trip.
	11	C. H. Fyrick, ...	American, ..	Miner, ...	56	M.	Knickerbocker No. 3,..		Leg broken by fall of rock at face of working place.
	14	John Zakosky, ...	Slavonian, ..	Machine runner, .	32	S.	Jerome No. 2, ...		Leg broken by fall of slate at face of working place.
		John Haravish, ...	Slavonian, ..	Motorman, ...	23	M.	Jerome No. 2, ...		Hand crushed between motors while holding a link to make a coupling.
	18	Lewis McCaria, ...	Polish, ...	Machine runner, .	25	M.	Consolidation No. 118,.		Partial dislocation of the spine by fall of slate at face of working place.
	24	John Stampinsky, ...	Polish, ...	Runner, ...	19	S.	Pen Mar No. 3, ...		Toes crushed by mine car running over them on main entry while in the act of throwing a switch.
March	13	Gene Mestepo, ...	Austrian, ..	Runner, ...	20	S.	Consolidation No. 119,.		Foot amputated by mine cars jumping track and catching his foot between car and rib on main entry.
	22	Julius Smith, ...	American, ..	Miner, ...	43	M.	Consolidation No. 105½,		Head and body bruised by fall of slate at face of working place.
	31	Hemp Durst, ...	American, ..	Company man, ...	42	M.	Pen Mar No. 2, ...		Leg broken by rope. While in the act of dropping a pipe down the shaft, the rope slipped. Outside.
April	10	Lewis Catos, ...	Slavonian, ..	Miner, ...	23	S.	Pen Mar No. 3, ...		Back injured by fall of rock at face of working place.
	21	Frank Oskey, ...	Slavonian, ..	Runner, ...	23	M.	Consolidation No. 119,.		Leg broken between mine car and door on entry.

April	23	Mike Clovoskey,	Russian,	Miner,	27	M.	Elma No. 1,	Somerset,	Collar bone broken by fall of coal at face of room.
	28	Lewis Speller,	German,	Miner,	42	M.	Ralphton No. 3,		Leg broken by fall of rock at face of working place.
May	14	Yarno Collatis,	Slavonian,	Miner,	22	S.	Elma No. 1,		Thigh fractured by fall of coal at face of room.
	17	Peter Dickie,	Slavonian,	Company man,	42	M.	Consolidation No. 101,		Rib broken and bruised about the thigh by fall of rock on entry.
	22	Mike Hobish,	Slavonian,	Miner,	48	S.	Orenda No. 2,		Arm broken by mine car on entry.
	23	John Heinshaw,	Russian,	Miner,	40	M.	Elma No. 2,		Collar bone broken by fall of coal at face of working place.
June	13	John Mezwa,	Polish,	Machine runner,	28	S.	Consolidation No. 113,		Leg broken while in the act of loading a mining machine on a truck at face of working place.
	19	Walade Shelko,	Polish,	Miner,	29	S.	Consolidation No. 119,		Abrasion of the thigh, back and abdomen by being caught by the haulage rope when a sheave wheel, on a curve, pulled out and the rope caught him against the rib on the main entry.
July	7	David Dunibo,	Irish,	Miner,	59	M.	Standard No. 2,		Leg broken by fall of coal at face of room.
	9	George Harden,	Slavonian,	Runner,	25	S.	Orenda No. 2,		Leg broken by mine car being pulled over his leg while trying to loosen brake.
	17	Frank Davis,	Welsh,	Miner,	28	S.	Orenda No. 2,		Crushed about the thigh by fall of roof rock on pillar work.
	21	Paul Krisko,	Austrian,	Miner.	29	M.	Ralphton No. 4,		Leg broken by fall of roof rock at face of entry.
Aug.	1	John Gleto,	Slavonian,	Company man,	22	S.	Pen Mar No. 3,		Leg broken by rope being jerked against his leg on entry at a curve when a sheave pulled out.
	12	John Smith,	American,	Loader,	20	S.	Consolidation No. 120,		Thigh fractured by mine cars being wrecked on side track when the main track motor threw a trip of cars into the track and against motor he was operating.
Sept.	1	William Martin,	American,	Machine runner,	37	M.	Ponfeigh,		Leg broken by machine truck running over his foot on entry.
	2	Harry Mullen,	American,	Driver,	25	M.	Consolidation No. 114,		Leg broken by being caught between bumpers of cars on entry.
	10	Keselo Masoe,	Italian,	Miner,	37	M.	Elma No. 1,		Rib broken by fall of slate at face of room.
	19	John Seeders,	American,	Miner,	45	M.	Jerome No. 1,		Arm broken by fall of coal on pillar work.
	22	Lawrence Weimer,	German,	Runner,	18	S.	Ralphton No. 10,		Leg broken by mine car running over his leg on main haulage road.
	25	Mike Kertes,	Russian,	Runner,	23	S.	Jerome No. 1,		Leg broken by car passing over his leg when he jumped off the motor.
Oct.	24	Tafal Melia,	Servian,	Miner,	31	M.	Orenda No. 2,		Part of hand amputated by fall of coal from the side while setting the brake on car near the face of room.
	27	Joe Vedick,	Austrian,	Miner,	26	S.	Ralphton No. 6,		Back injured by fall of roof rock at face of room.
Nov.	12	Peter Vetock,	Slavonian,	Runner,	22	S.	Ralphton No. 1,		Collar bone broken by being caught between mine cars that were being pushed back on entry to be coupled together.

TABLE 5—Continued

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Name of Mine	County	Nature and Cause of Accident in Brief
Nov. 13	Andrew Protosina, ..	Russian, ...	Machine runner, .	25	M.	Pen Mar No. 2, ...	Somerset, ...	Arm broken by mining machine at face of room while in the act of placing machine on the truck.
14	Andy Sabot, ...	Polish, ...	Miner, ...	32	M.	Consolidation No. 119, .		Shoulder-blade broken by mine car at entrance to room.
20	Angelo Etta, ...	Italian, ...	Runner, ...	20	S.	Consolidation No. 119, .		Foot crushed by mine car on entry while in the act of coupling cars.
27	Tony Row, ...	Austrian, ..	Miner, ...	28	S.	Consolidation No. 111, .		Laceration of the thumb and finger blown off by a detonator cap that he was picking with a nail.
Dec. 12	Tony Burgar, ...	Italian, ...	Miner, ...	42	M.	Ralphton No. 10, ...		Leg broken by derailed mine car catching him between car and post on side track.
19	William Sanderson, ..	American, ..	Machinist, ...	39	M.	Hocking, ...		Three ribs broken by fall of roof rock on main slope haulage road.
24	Joseph Chernock, ...	Slavonian, ..	Runner, ...	20	S.	Que Creek No. 1, ...		Leg broken by being caught between motor and door post while sitting on front end of motor with his legs extended over over the side of the motor.

CONDITION OF MINES

CONSOLIDATION COAL COMPANY

Consolidation No. 101.—Ventilation fair; drainage very poor in some portions. A mine fire occurred in the old workings near the mine entrance and close to the crop of the coal. The fire originated from an old gob pile on the surface that was along the outcrop of the coal, and some of the old workings were cut through to the surface, from which places the fire found its way into the mine. It was checked by the use of a chemical fire engine and then sealed off by a number of stoppings. At the present time it is under control.

Consolidation No. 102.—Ventilation good, except in one entry, which I ordered closed until it could be properly ventilated. Drainage good.

Consolidation No. 104.—Ventilation fairly good; drainage defective in portions of the mine. The electrical installation was in bad condition. The wires, in many places, were against the coal and timbers, and at some points where the workmen must pass under the trolley wire it was not sufficiently guarded to protect them from coming in contact with it. I notified the management of the mine to see that the matters complained of be immediately remedied and they agreed to put everything in first class condition without delay.

Consolidation No. 105.—Nearly exhausted. Ventilation and drainage fairly good.

Consolidation No. 105½.—Ventilation good; drainage defective in some portions.

Consolidation No. 106.—Ventilation good; drainage defective in some portions.

Consolidation No. 108.—A new mine opened at Wilson Creek in the "A" seam of coal. On my inspection it was amply ventilated by natural means for the number employed. Drainage good.

Consolidation No. 111.—Ventilation fair; drainage defective in some portions. The sides along the roadways were obstructed by dirt and refuse, and the height of some of the entries was less than required by law. I instructed the management to remedy immediately the conditions complained of, and have been notified that most of the work has been completed.

Consolidation No. 112.—Ventilation and drainage fair.

Consolidation No. 113.—Ventilation and drainage fair, but the height of some of the headings was not sufficient to comply with the law. I instructed the management to have the legal height made without delay.

Consolidation No. 114.—Ventilation good in some portions, but very weak in other portions. Drainage in the productive headings in the major portion of the mine was bad, the haulage roads being wet and muddy. I instructed the management to remedy the matters complained of.

Consolidation No. 115.—Nearly exhausted. Ventilation and drainage good.

Consolidation No. 117.—Nearly exhausted, but a shaft has been sunk to the "B" seam of coal to test it, preparatory to making another operation at this point. Ventilation and drainage good.

Consolidation No. 118.—Ventilation and drainage good.

Consolidation No. 119.—Ventilation and drainage good.

Consolidation Nos. 120 and 121.—Ventilation, drainage and general condition excellent.

JENNER QUEMAHONING COAL COMPANY

Jerome No. 1.—Ventilation, drainage and general condition excellent.

Jerome No. 2.—Ventilation, drainage and general condition excellent.

QUEMAHONING COAL COMPANY

Ralphton Nos. 1, 3 and 4.—Ventilation poor; drainage fairly good, sides obstructed along haulage-ways; electric wires not sufficiently protected to keep workmen from coming in contact with them. These three mines are connected. I recommend that an additional opening be made by sinking a shaft near the face of the workings of Nos. 1 and 4 mines, which will improve the ventilation and also afford a traveling way, which is necessary as a second means of ingress and egress. The company has commenced to sink the shaft and in addition is building stoppings and overcasts and is trying to place the mines in first class condition to meet the full requirements of the law.

Ralphton No. 5.—Ventilation and drainage good.

Ralphton No. 6.—Ventilation, drainage and general condition good. The miners use permissible explosives.

Ralphton No. 7.—Ventilation and drainage good.

Ralphton No. 8.—Idle during the year.

Ralphton No. 10.—Ventilation good; drainage fair.

BROTHERS VALLEY COAL COMPANY

Pen Mar No. 2.—Ventilation defective in some portions, but fairly good in other portions; drainage good. The height of the headings on the upper side of the mine was not according to law. The company promised to abandon that portion of the mine and make improvements around the shaft bottom to such extent as to put the mine in first class condition.

Pen Mar No. 3.—Ventilation defective throughout the mine, the air currents being very weak. The ventilator was not large enough to efficiently ventilate the mine. A new fan has been ordered, new air courses are being driven and concrete stoppings are being built throughout the mine.

SOMERSET SMOKELESS COAL COMPANY

Orenda No. 2.—Ventilation, drainage and general condition good. The miners use permissible explosives.

Orenda Nos. 3, 4 and 5.—New mines were not inspected, as they were idle the latter part of the year.

Merchants No. 3.—Ventilation fairly good; drainage defective.

KNICKERBOCKER SMOKELESS COAL COMPANY

Knickerbocker No. 2.—Ventilation and drainage good.
Knickerbocker No. 3.—Ventilation fair; drainage good.

BAKER-WHITELY COAL COMPANY

Elma No. 1.—Ventilation, drainage and general condition good.
Elma No. 2.—Ventilation, drainage and general condition excellent

SOMERSET MINING COMPANY

Knickerbocker No. 1.—Ventilation and drainage good.

STAUFFER QUEMAHONING COAL COMPANY

Stauffer No. 1.—Ventilation, drainage and general condition good.

Stauffer Nos. 2 and 3.—Ventilation and drainage good. Nos. 2 and 3 mines are ventilated by the same system, but No. 3 mine will be disconnected from No. 2 as soon as an outside track is completed to the railroad, which track is one mile in length. No. 2 mine will then begin to extract the main entry pillars.

GRASSY RUN COAL COMPANY

Grassy Run No. 1.—Ventilation defective; drainage good.
Grassy Run No. 2.—Ventilation fair; drainage good.
Grassy Run No. 3.—Ventilation fair; drainage good.

ATLANTIC COAL COMPANY

Atlantic No. 1.—Ventilation and drainage good.

Atlantic No. 2.—Ventilation fair; drainage good. This is a new mine opened in the "A" seam of coal near Wilson Creek.

READING IRON COMPANY

Reading No. 3.—Ventilation and drainage good.
Reading No. 4.—Ventilation and drainage good.

ENTERPRISE COAL COMPANY

Ponfeigh.—Ventilation good in some portions, but in other portions only fair; drainage good. Electric wires were poorly supported, the hangers being too far apart. I instructed the foreman to remedy this defect without any unnecessary delay.

KEYSTONE COAL COMPANY

Glen McClarin Nos. 1 and 2.—Ventilation and drainage good.

MEYERSDALE FUEL COMPANY

Yoder.—Ventilation fair; drainage defective.

STANDARD QUEMAHONING COAL COMPANY

Standard Nos. 1 and 2.—Ventilation only fair; drainage defective in some portions.

QUEMAHONING CREEK COAL COMPANY

Que Creek No. 1.—Ventilation and drainage good.

Que Creek No. 2.—Idle the greater part of the year.

RANDOLPH COAL COMPANY

Randolph.—Ventilation and drainage good.

C. J. ROWE AND BROTHERS

Hamilton.—Ventilation defective. Was not conducted to the working places in sufficient volume to keep the mine in proper sanitary condition. I ordered the mine foreman to have the necessary stoppings built to conduct the air properly. Drainage good.

Mystic No. 1.—Abandoned this year.

Mystic No. 2.—A new mine opened in the seam above No. 1 mine, or the Redstone seam of coal, near Meyersdale. Was not inspected.

W. A. MERRILL AND COMPANY

Enterprise No. 1.—Ventilation fair; drainage defective. The sides along the haulage roads were obstructed by dirt and refuse. I notified the mine foreman to remedy this defect without delay, which he promised to do.

HILLWORTH COAL COMPANY

The name of this company was changed the latter part of the year from the Belmont Quemahoning Coal Company.

Belmont No. 1.—Ventilation good; drainage defective.

Belmont No. 2.—A new mine opened in "C" Prime seam of coal across the ravine from No. 1 mine. Conditions good.

Belmont No. 3.—A new mine opened in the Upper Freeport or "E" seam of coal above No. 2 mine. Conditions good.

GRAHAM COAL COMPANY

Pretoria Nos. 2 and 3.—Ventilation and drainage good. The shelter holes are not made as required by law, and the sides along the haulage roads are obstructed by dirt The mines were idle the latter part of the year.

S. M. HAMILTON AND COMPANY

Adams.—Ventilation reasonably good; drainage in some portions defective.

ELK LICK COAL COMPANY

Beachley.—Ventilation and drainage good.

JOHN W. WILLS COAL COMPANY

Wills No. 2.—A new operation opened through an old mine on the opposite side of the ravine from No. 3 mine. Was not inspected.

Wills No. 3.—Ventilation good; drainage very poor along the haulage road. The sides were obstructed by dirt and refuse. I ordered the defects remedied and my request has been complied with.

STONER COAL COMPANY

Stoner Nos. 1 and 2.—Ventilation and drainage good.

LIDALIA COAL COMPANY

Anspach.—Ventilation was ample for the number of workmen employed; drainage good. The electric wires were not properly guarded, shelter holes were not provided, and the height of the entries that are used for traveling roads was not according to law. I notified the management to remedy the defects, but on my second inspection, found that nothing had been done, and I immediately prosecuted the mine foreman, who is also the superintendent.

BRANDENBURG COAL MINING COMPANY

Rockwood.—Ventilation and drainage good.

FISHER SMOKELESS COAL COMPANY

Neva.—Ventilation and drainage fair.

FEDERAL COAL COMPANY

Federal Nos. 1 and 2.—Ventilation fairly good; drainage good, except at a few places.

LISTONBURG COAL COMPANY

Miller.—Ventilation and drainage good.

HOCKING COAL COMPANY

Hocking.—Ventilation ample for the number of workmen employed; drainage fairly good. The management of the company has changed.

TAYLOR AND McDONNELL

Quality No. 1.—A new mine opened in the Barren seam of coal near Pine Hill. Ventilation and drainage fairly good.

JAMES HARDING

Margaret.—An old mine, but recently it came under the law. Ventilation ample for the number of workmen employed; drainage good.

BOYNTON COAL COMPANY

Maust.—Ventilation fair; drainage good. An old mine, but recently it came under the law.

MOUNTAIN SMOKELESS COAL COMPANY

Mountain Nos. 1 and 2.—Idle the latter part of the year and no inspection made.

MARGARET SMOKELESS COAL COMPANY

Landstreet.—A new mine opened in the "B" or Miller seam of coal at Landstreet Station on the B. and O. Railroad. Ventilation and drainage good.

SOMERSET FUEL COMPANY

White Creek.—The old White Creek mine near Listonburg, which was idle for a number of years, but has been reopened. Ventilation and drainage fairly good.

J. A. KIRKPATRICK

Kirkpatrick.—The old Listonburg mine, which was abandoned some years ago, but has been re-opened to get the pillar coal. Ventilation fair; drainage good.

GARRETT COAL COMPANY

South Side.—This is the old South Side mine, located at Garrett, which was idle for some time, but has been re-opened. Ventilation and drainage fair.

IVY RIDGE COAL COMPANY

Ivy Ridge.—This mine is located at Rockwood, was under the law only a short time this year. Was not inspected by me.

IMPROVEMENTS

CONSOLIDATION COAL COMPANY

Consolidation No. 106.—Sunk an air shaft, 8 by 10 feet and 46 feet deep, and installed a 7-foot Stine fan thereon, housed in a concrete building.

Consolidation No. 108.—Made a new opening in the Wilson Creek property on the opposite side of the ravine from No. 114 mine. An air shaft, with man-way compartment, 10 by 16 feet, was sunk 29 feet to the coal seam. Built new tipple, with a shed 27 feet by 80 feet. Installed one 35-gallon Fairmont pump, one C. E. 6 Sullivan mining machine and one 7-foot Stine fan.

Consolidation No. 111.—The tracks throughout the mine were relaid with heavier iron suitable for motor haulage. Installed a 100 K. W. Jeffrey generator and McEwen engine and one 7-ton G. E. locomotive; built new power house.

Consolidation No. 112.—One 8-foot Stine fan installed and fan house built.

Consolidation No. 113.—Built fifteen concrete stoppings and installed one C. E. 6 Sullivan mining machine.

Consolidation No. 115.—Installed one 150 H. P. Erie City boiler.

Consolidation No. 117.—Sunk air shaft, 8 by 10 feet and 100 feet deep, to test "B" seam of coal.

Consolidation No. 118.—Built 3 concrete overcasts and erected 46 sets of steel timbers in air course. Sunk an air shaft, 10 by 18 feet, 108 feet to the coal at the head of a new main air course, which is lined with concrete around the bottom of the shaft a distance of 100 feet on both sides of the shaft. The shaft is lined with concrete and has a man-way compartment equipped with an Otis elevator electrically driven. Installed on air shaft one 14 by 6 foot Lepley fan, housed in brick building. Installed one 1,150 gallon centrifugal pump and one C. E. 7 Sullivan mining machine.

Consolidation No. 119.—Built one concrete manway overcast; installed one 500 gallon centrifugal pump, and added 50 mine cars to equipment.

Consolidation No. 120.—Built three concrete overcasts; erected four automatic mine doors; installed one Sullivan mining machine and one 7-ton electric gathering locomotive, added 100 mine cars to equipment.

JENNER QUEMAHONING COAL COMPANY

Jerome No. 1.—Drove a drainage tunnel 1,900 feet in length, 1,400 feet of which was through solid rock, to drain both Nos. 1 and 2 mines. Built 155 concrete stoppings and laid 8,500 feet of 40 pound rails.

Jerome No. 2.—Built 141 concrete stoppings and laid 9,600 feet of 40 pound rails.

The company established a Y. M. C. A. and fully equipped a large building for this purpose with bowling alleys, pool rooms, libraries, et cetera.

QUEMAHONING COAL COMPANY

Ralphton No. 5.—Installed one new fan.

Ralphton No. 6.—Installed picking tables in the tipple and graded around the bottom of the hoisting shaft for a large side track.

Ralphton No. 7.—Installed one new fan.

BROTHERS VALLEY COAL COMPANY

Pen Mar No. 2.—Built new tipple and installed picking tables.

Pen Mar No. 3.—Built three concrete overcasts and a number of concrete stoppings.

SOMERSET SMOKELESS COAL COMPANY

Orenda No. 2.—Built four concrete dams and eight piers containing 1,700 cubic feet of concrete, 148 concrete stoppings, 6 concrete overcasts; laid 20,500 feet of motor road. Installed one 7½ by 12 inch vertical quintriplex pump, with a capacity of 450 gallons per minute, driven by a Westinghouse 200 H. P. motor; also installed one 6-ton Jeffrey locomotive. Outside: Installed one bony conveyor to carry refuse from tipple to boilers, and one ash conveyor.

KNICKERBOCKER SMOKELESS COAL COMPANY

Knickerbocker No. 2.—Built three concrete overcasts and 12 concrete stoppings.

Knickerbocker No. 3.—Built 3 concrete overcasts and 5 concrete stoppings.

BAKER-WHITELY COAL COMPANY

Elma No. 2.—Built one concrete overcast; installed one Clark engine and dynamo and built 12 dwelling houses.

SOMERSET MINING COMPANY

Knickerbocker No. 1.—Built 2 concrete overcasts and 15 concrete stoppings.

STAUFFER QUEMAHONING COAL COMPANY

Stauffer No. 1.—Built one concrete overcast and 25 stoppings; regraded the main haulage road and relaid it with 35 pound steel rails a distance of 7,000 feet. The surface plant was equipped with the following: One Beard-Stine fan, 13 feet 10 inches by 5 feet, connected to a 17 by 22 Chandler and Taylor 170 H. P. engine, with a rating of 150,000 cubic feet of air per minute at a 4-inch water gauge; one Westinghouse D. C. generator, 727 amperes, 250 volts, connected to a 20 by 20 ball engine of 300 H. P.; two return tubular Erie City boilers of 150 H. P. each. Installed inside one 13-ton electric locomotive; one 5-ton electric locomotive, and one 3½-ton electric locomotive, and five Deming pumps, with a capacity of 1,010 gallons per minute.

Stauffer Nos. 2 and 3.—Excavated rock incline 200 feet long from No. 2 mine up to the Upper Freeport or "E" seam of coal, which lies 50 to 60 feet above what is locally known as the "C Prime" seam of coal.

ATLANTIC COAL COMPANY

Atlantic No. 2.—A new drift opening in the "A" seam of coal near Wilson Creek. It has an outside track two miles in length to the tipple erected at the top of the plane where the coal is dumped into bins, with a capacity of 80 cars. It is then dropped down an incline 1,400 feet in 10-ton Monitors to the large bins at the railroad, which have a capacity of 600 tons, and the railroad cars are loaded on the B. and O. Railroad near McSpadden Station. The coal is hauled over the surface by a steam locomotive.

READING IRON COMPANY

Reading Nos. 3 and 4.—Installed one C. E. 7 Sullivan mining machine.

PROSECUTIONS FOR VIOLATION OF THE MINING LAWS

December 9.—Paul Castelline, miner, Consolidation No. 119 mine, Consolidation Coal Company. Charge: Shooting coal out of the solid and handling powder with open light on his head. Entered plea of guilty and was sentenced to pay the costs, a fine of $25.00 and undergo imprisonment in the county jail for 30 days.

April 9.—Andy Menage, miner, Ralphton No. 5 mine, Quemahoning Coal Company. Charge: Opening a door and neglecting to close it immediately. December 1, nolle prosequi entered, county to pay costs.

MINE FOREMEN'S, ASSISTANT MINE FOREMEN'S AND FIRE BOSSES' EXAMINATIONS

The annual examination of applicants for certificates of qualification as mine foremen, assistant mine foremen and fire bosses was held in Somerset, May 6, 7 and 8, 1913. The Board of Examiners was composed of Richard Maize, Mine Inspector; G. M. Gillette, Superintendent, and Frank Moors, Miner.

There were 29 applicants for certificates of qualification as mine foremen and assistant mine foremen, and 14 applicants for certificates of qualification as fire bosses.

The following persons passed a satisfactory examination and were granted certificates:

MINE FOREMEN

First Grade

William G. Palmer, Boswell.

Second Grade

Ross W. Meyers, Somerset; Michael La Bonino, Hooversville; Clarence F. Rowe, Meyersdale.

ASSISTANT MINE FOREMEN

Archie Roberts, Martin McGuire, William Letcher, Thomas Mark and Clarence G. Nichols, Boswell.

FIRE BOSSES

Donald J. Craig, Dalton J. Holsopple, John W. Taylor, Boswell; Thomas J. Branch, Meyersdale; Frank A. Hoover, Clarence B. Bittner, Orville S. Kreger, Acosta.

TWENTY-FIRST DISTRICT

WASHINGTON AND GREENE COUNTIES

Charleroi, Pa., February 18, 1914.

Hon. James E. Roderick, Chief of Department of Mines:

Sir: I have the honor to transmit herewith my annual report as Inspector of Mines of the Twenty-first Bituminous District for the year ending December 31, 1913.

The report contains the usual tables and statistics, the improvements made during the year, prosecutions for violation of the mine law, and the result of the annual examination of applicants for certificates of qualification as mine foremen, assistant mine foremen and fire bosses.

Respectfully submitted,

CHARLES P. BYRNE, Inspector.

SUMMARY OF STATISTICS

Number of mines,	20
Number of mines in operation,	20
Number of tons of coal shipped to market,	6,032,675
Number of tons used at mines for steam and heat,	166,690
Number of tons sold to local trade and used by employes,	22,786
Number of tons used in the manufacture of coke,	234,700
Number of tons of coal produced,	6,456,851
Number of tons of coke produced,	152,983
Number of coke ovens,	685
Number of coke ovens in operation,	685
Number of tons of coal produced by pick mining,	1.451,200
Number of tons produced by compressed air machines,	746,549
Number of tons produced by electrical machines,	4,259,102
Number of persons employed inside of mines,	5,328
Number of persons employed outside, including coke workers,	846
Number of persons employed at manufacture of coke,	77
Number of fatal accidents inside of mines,	32
Number of fatal accidents outside,	3
Number of non-fatal accidents inside of mines,	38
Number of non-fatal accidents outside,	2
Number of tons of coal produced per fatal accident inside,	201.777
Number of tons produced per fatal accident outside,	2,152,284
Number of tons produced per fatal accident inside and outside,	184,481
Number of persons employed per fatal accident inside,	167
Number of persons employed per fatal accident outside,	282
Number of persons employed per fatal accident inside and outside,	176
Number of persons employed per non-fatal accident inside,	140
Number of persons employed per non-fatal accident outside,	423
Number of persons employed per non-fatal accident inside and outside,	154
Number of wives made widows,	19
Number of children made orphans,	48
Number of steam locomotives used inside of mines,	....
Number of steam locomotives used outside,	1
Number of compressed air locomotives used inside,	38
Number of compressed air locomotives used outside,	....
Number of electric motors used inside,	81
Number of electric motors used outside,	....
Number of gasoline locomotives used inside,	....
Number of fans in use,	26
Number of furnaces in use,	1
Number of gaseous mines in operation,	19
Number of non-gaseous mines in operation,	1
Number of new mines opened,	2
Number of old mines abandoned,	....

TABLE A

PRODUCTION OF COAL

Names of Operators

	Tons
Vesta Coal Company,	2,962,326
Monongahela River Consolidated Coal and Coke Company,	1,725,429
Pittsburgh-Buffalo Company,	624,100
Diamond Coal and Coke Company,	322,895
Clyde Coal Company,	237,099
Warner-Leonard Coal Company,	152,773
Crucible Coal Company,	120,126
Charles W. Braznell,	116,642
Bessemer Coke Company,	109,324
Rices Landing Coal and Coke Company,	50,786
Reliance Coke Company,	30,516
Fredericktown, Coal and Coke Company,	2,904
Lilley Coal and Coke Company,	1,931
Total,	6,456,851

Production by Counties

Washington,	6,285,939
Greene,	170,912
Total,	6,456,851

TABLE B.—Fatal and non-fatal accidents inside and outside of mines; number of tons of coal produced per accident; number of persons employed; number employed per accident

Names of Operators	Fatal Accidents			Non-Fatal Accidents			Tons of coal produced per fatal accident inside	Tons of coal produced per non-fatal accident inside	Number of employes inside	Number of employes outside	Total number of employes	Number of employes inside per fatal accident	Number of employes outside per fatal accident	Number of employes inside per non-fatal accident	Number of employes outside per non-fatal accident
	Inside	Outside	Total	Inside	Outside	Total									
Vesta Coal Co.,	12	1	13	20	......	20	246,861	148,116	2,067	310	2,377	172	310	103	....
Monongahela River Consolidated Coal and Coke Co.,	7	......	7	5	......	5	246,490	345,086	1,443	201	1,644	206	....	288	....
Pittsburgh-Buffalo Co.,	6	1	7	1	......	1	104,017	624,100	700	85	785	116	85	700	....
Diamond Coal and Coke Co.,	1	......	1	5	......	5	322,895	64,579	292	32	324	292	....	58	....
Clyde Coal Co.,	1	1	2	2	......	2	237,099	118,549	232	32	264	232	32	116	....
Crucible Coal Co.,	......	......	......	3	2	5	....	40,042	105	61	166	....	....	35	30
Charles W. Braznell,	1	......	1	......	......	......	116,642	....	76	9	85	76	....	....	....
Bessemer Coke Co.,	2	......	2	1	......	1	54,662	109,324	58	12	70	29	....	58	....
Rices Landing Coal and Coke Co.,	1	......	1	......	......	......	50,786	....	129	13	142	129	....	....	....
Reliance Coke Co.,	1	......	1	1	......	1	30,516	30,516	80	60	140	80	....	80	....
Miscellaneous Companies,	......	......	......	......	......	......	....	....	146	31	177	....	....	....	....
Totals and averages for district,	32	3	35	38	2	40	201,777	169,917	5,328	846	6,174	167	282	140	423

TABLE C.—Classification of Fatal Accidents Inside and Outside of Mines

	Months													
	January	February	March	April	May	June	July	August	September	October	November	December	Totals	Percentages
Causes of Accidents Inside														
Falls of coal,	....	....	....	2	1	....	....	....	....	....	....	....	3	9.38
Falls of slate,	....	....	....	3	4	....	....	....	....	3	2	....	12	37.50
Falls of roof,	....	....	....	1	....	....	....	....	1	....	2	....	4	12.50
Mine cars,	1	3	....	....	....	3	1	1	....	....	3	....	12	37.50
Electricity,	....	....	....	....	....	1	....	....	....	....	....	....	1	3.12
Totals,	1	3	....	6	5	4	1	1	1	3	7	....	32	100.00
Causes of Accidents Outside														
Machinery,	1	....	....	....	....	....	....	....	....	....	....	....	1	33.34
Struck by prop,	....	....	....	....	....	....	1	....	....	....	....	....	1	33.33
By falling,	....	....	....	....	....	....	....	....	....	....	1	....	1	33.33
Totals,	1	....	....	....	....	....	1	....	....	....	1	....	3	100.00
Grand totals inside and outside,	2	3	....	6	5	4	2	1	1	3	8	....	35	......

TABLE D.—Classification of Non-Fatal Accidents Inside and Outside of Mines

	Months													
	January	February	March	April	May	June	July	August	September	October	November	December	Totals	Percentages
Causes of Accidents Inside														
Falls of coal,	2	....	....	....	....	....	....	2	....	....	....	....	4	10.53
Falls of slate,	....	....	2	....	1	....	1	1	....	3	....	3	11	28.95
Falls of roof,	....	2	1	....	....	....	1	1	1	....	1	....	7	18.42
Mine cars,	....	2	....	2	1	1	....	1	....	....	1	2	10	26.32
Blasts, premature and otherwise,	....	2	....	....	....	....	....	....	....	....	....	....	2	5.26
Mules,	1	....	....	....	....	....	....	....	....	....	....	....	1	2.63
Struck by rope,	....	1	....	....	....	....	....	1	....	....	....	....	2	5.26
Struck by prop,	....	....	....	....	....	1	....	....	....	....	....	....	1	2.63
Totals,	3	7	3	2	2	2	2	6	1	3	2	5	38	100.00
Causes of Accidents Outside														
Cars,	....	....	....	....	....	....	....	....	1	....	....	....	1	50.00
Machinery,	1	....	....	....	....	....	....	....	....	....	....	....	1	50.00
Totals,	1	....	....	....	....	....	....	....	1	....	....	....	2	100.00
Grand totals inside and outside,	4	7	3	2	2	2	2	6	2	3	2	5	40	......

TABLE E.—Occupations of Persons Killed or Fatally Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
Inside													
Assistant mine foremen, ...	....	....	....	1	....	....	....	....	....	....	....	....	1
Miners, ...	1	2	....	2	2	....	....	....	1	2	4	....	14
Machine loaders, ...	....	....	....	2	2	2	1	....	....	1	....	....	8
Machine scrapers, ...	....	....	....	1	....	....	....	....	....	....	....	....	1
Drivers and runners, ...	....	....	....	....	1	....	....	....	....	....	....	....	1
Brakemen, ...	....	1	....	....	....	1	....	1	....	....	3	....	6
Motormen, ...	....	....	....	....	....	1	....	....	....	....	....	....	1
Totals, ...	1	3	....	6	5	4	1	1	1	3	7	....	32
Outside													
Engineers and firemen, ...	1	....	....	....	....	....	....	....	....	....	....	....	1
Laborers, ...	....	....	....	....	....	....	1	....	....	....	1	....	2
Totals, ...	1	....	....	....	....	....	1	....	....	....	1	....	3
Grand totals inside and outside, ...	2	3	....	6	5	4	2	1	1	3	8	....	35

TABLE F.—Occupations of Persons Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
Inside													
Mine foremen, ...	....	....	....	....	....	....	....	1	....	....	....	....	1
Miners, ...	2	....	2	....	....	1	1	2	1	2	....	1	12
Machine runners, ...	....	....	....	....	....	....	....	....	....	1	....	....	1
Machine loaders, ...	....	2	1	....	1	....	1	2	....	....	1	1	9
Drivers and runners, ...	1	2	....	....	....	....	....	....	....	....	....	2	5
Laborers, ...	....	1	....	....	....	....	....	....	....	....	....	....	1
Roadmen, ...	....	2	....	....	....	....	....	....	....	....	....	....	2
Brakemen, ...	....	....	....	1	....	1	....	....	....	....	1	....	3
Motormen, ...	....	....	....	1	1	....	....	....	....	....	....	....	2
Tracklayers, ...	....	....	....	....	....	....	....	1	....	....	....	....	1
Dumpers, ...	....	....	....	....	....	....	....	....	....	....	....	1	1
Totals, ...	3	7	3	2	2	2	2	6	1	3	2	5	38
Outside													
Laborers, ...	1	....	....	....	....	....	....	....	1	....	....	....	2
Totals, ...	1	....	....	....	....	....	....	1	....	....	....	....	2
Grand totals inside and outside, ...	4	7	3	2	2	2	2	6	2	3	2	5	40

TABLE G.—Nationality of Persons Killed or Fatally Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
American,	....	2	....	3	1	1	....	1	....	1	1	....	10
German,	....	1	....	....	....	....	....	....	....	....	1	....	2
Polish,	....	....	....	1	....	....	1	....	....	....	....	....	2
Hungarian,	1	....	....	1	1	....	....	....	....	....	2	....	5
Italian,	1	....	....	1	1	....	1	....	....	....	2	....	6
Slavonian,	....	....	....	....	2	1	....	....	....	....	....	....	3
Russian,	....	....	....	....	....	1	....	....	1	2	2	....	6
Finnish,	....	....	....	....	....	1	....	....	....	....	....	....	1
Totals,	2	3	....	6	5	4	2	1	1	3	8	....	35

TABLE H.—Nationality of Persons Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
American,	1	4	....	2	....	....	....	1	....	....	....	....	8
English,	....	....	....	....	....	....	....	1	....	....	....	....	1
German,	1	1	....	....	....	....	....	....	....	....	....	....	2
Polish,	....	....	....	....	1	1	....	1	....	....	1	....	4
Hungarian,	1	....	1	....	1	1	1	2	....	....	....	....	7
Italian,	....	....	1	....	....	....	....	....	1	1	....	2	5
Slavonian,	1	2	....	....	....	....	1	....	1	....	1	1	7
Lithuanian,	....	....	....	....	....	....	....	....	....	1	....	....	1
Russian,	....	....	....	....	....	....	....	1	....	....	....	1	2
Belgian,	....	....	....	....	....	....	....	....	....	1	....	1	2
Finnish,	....	....	1	....	....	....	....	....	....	....	....	....	1
Totals,	4	7	3	2	2	2	2	6	2	3	2	5	40

TABLE I —Operators and mines, kind of openings, type and size of fans, size of furnaces, volume of air produced by fan or furnace per minute, number of splits of air currents and number of persons employed inside

Names of Operators and Mines	Kind of opening	Gaseous or non-gaseous	Method of ventilation	Diameter of fan in feet and inches	Width of blades in feet and inches	Depth of blades in feet and inches	Number of revolutions per minute	Water gauge developed—in inches	Name of fan	Power used	Area of furnace bars in square feet	Number of splits of air currents	Number of cubic feet of air per minute entering the mine at inlet	Total number of cubic feet of air per minute circulating in all the splits	Number of cubic feet of air per minute passing out at outlet	Number of persons employed inside
Vesta Coal Co.																
Vesta No. 1,	Drift,	Gaseous,	Furnace,	......	......	......	......	......	......	......	36	1	18,000	10,000	21,200	45
Vesta No. 2,	Drift,	Gaseous,	Fan,	6.0	3.0	2.0	320	1.75	Jeffrey,	Electricity,	..	..	41,000	28,000	45,000	87
Vesta No. 3,	Drift,	Gaseous,	2 Fans,	12.0	3.8	3.10	100	1.0	McCrimmin	Steam,		3	67,000	38,700	88,000	217
				6.0	3.0	2.0	210	1.0	Jeffrey,	Electricity,						
				16.0	8.0	5.6	100	3.0	Robinson,	Steam,						
				16.0	8.0	6.0	100	3.0	Capell,	Electricity,						
Vesta No. 4,	Drift,	Gaseous,	5 Fans,	20.0	10.0	8.0	100	0.8	Capell,	Electricity,		21	389,000	258,000	456,000	1,088
				6.0	3.0	2.0	180	.9	Capell,	Electricity,						
				6.0	3.0	2.0	185	1.0	Jeffrey,	Electricity,						
Vesta No. 5,	Drift,	Gaseous,	2 Fans,	20.0	8.0	10.0	90	......	Clifford,	Steam,		6	150,000	102,000	196,800	680
				6.0	3.0	3.0	150	3.3	Jeffrey,	Electricity,						
Monongahela River Consolidatea Coal and Coke Co.																
Crescent,	Slope,	Gaseous,	2 Fans,	13.6	6.9	1.0	160	4.8	Sirocco,	Electricity,		13	300,000	243,000	306,000	794
.				8.0	1.3	1.3	200	.8	Stine,	Electricity,						
				12.0	6.0	6.0	132	1.5	Robinson,	Steam,						
Eclipse,	Drift,	Gaseous,	3 Fans,	8.0	1.7	1.0	325	1.	Stine,	Electricity,		8	187,000	100,300	198,000	416
				6.0	1.7	1.0	325	1.	Stine,	Electricity,						
Knob,	Slope,	Gaseous,	Fan,	16.0	6.0	6.0	80	1.5	Vulcan,	Steam,	..	3	53,390	36,500	60,000	145
Vigilant,	Slope,	Gaseous,	Fan,	25.0	8.0	7.0	48	1.4	Guibal,	Steam,	..	2	75,000	30,000	77,000	88
Pittsburgh-Buffalo Co.																
Rachel,	Shaft,	Gaseous,	Fan,	35.0	8.0	16.7	70	3.6	Lepley,	Steam,	..	26	325,000	280,000	348,000	700
Diamond Coal and Coke Co.																
Diamond,	Slope,	Gaseous,	Fan,	14.0	5.0	2.4	100	2.0	Jeffrey,	Steam,	..	6	92,300	66,175	95,000	292

Clyde Coal Co. Clyde, ...	Drift, ...	Gaseous, ..	Fan, ...	16.0	6.0	7.5	88	1.4	Capell, ...	Electricity, .	..	3	87,000	52,760	92,000	232
Warner-Leonard Coal Co. Kinder, ...	Slope, ...	Gaseous, ..	Fan, ...	10.0	2.0	4.0	85	1.0	Brazil, ...	Steam, ...	..	2	30,000	18,000	32,000	113
Crucible Coal Co. Crucible, ...	Shaft, ...	Gaseous, ..	Fan, ...	26.0	6.0	4.0	45	1.6	Clifford, ..	Steam, ...	..	1	100,000	20,000	120,000	105
Charles W. Braznell Maple Glen, ...	Drift, ...	Gaseous, ..	Fan, ...	6.0	3.0	2.0	200	1.0	Sirocco, ..	Steam, ...	..	1	25,700	17,500	32,500	76
Bessemer Coke Co. Millsboro, ...	Slope, ...	Gaseous, ..	Fan, ...	20.0	5.0	5.0	60	1.0	Cole, ...	Steam, ...	..	2	38,500	21,300	40,600	58
Rices Landing Coal and Coke Co. Rices Landing, ...	Shaft, ...	Gaseous, ..	Fan, ...	16.0	8.0	5.0	90	1.4	Capell, ...	Steam, ...	..	3	58,000	43,500	64,000	129
Reliance Coke Co. Reliance, ...	Shaft, ...	Gaseous, .	Fan, ...	12.0	4.0	5.0	55	1.0	Jeffrey, ..	Steam, ...	..	1	25,000	17,500	31,000	80
Fredericktown Coal and Coke Co. Fredericktown, ...	Drift, ...	Non-gas., .	*	......	......	......	......	......	....	....	..	..	....	....	....	19
Lilley Coal and Coke Co. Lilley, ...	Slope, ...	Gaseous, ..	*	......	......	......	......	......	....	....	..	..	....	....	....	14

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*Mine being developed; no fan installed.

TABLE J.—Mines using coal cutting machines, power used, geological and local names of seams, thickest and thinnest seams where machines are used, and the approximate number of tons produced by machines

Names of Operators	Names of Mines	Kind of opening	Gaseous or non-gaseous	Number of mining machines used	Power used by machines	Geological and local names of seams	Average thickness in inches	Height of Seam in Inches		Approximate number of tons produced by machines
								Thickest	Thinnest	
Vesta Coal Co., ...	Vesta No. 2, ...	Drift, ...	Gaseous, ..	3	Electricity, ...	Pittsburgh Thick,	69	84	54	18,821
	Vesta No. 4, ...	Drift, ...	Gaseous, ..	32	Electricity, ...		72	89	54	1,375,695
	Vesta No. 5, ...	Drift, ...	Gaseous, ..	12	Electricity, ...		82	96	68	802,784
				18	Compressed air, .					
Totals, ...	....	....	....	60	....	....	....	......	......	2,197,300
Monongahela River Consolidated Coal and Coke Co., ...	Crescent, ...	Slope, ...	Gaseous, ..	25	Electricity, ...	Pittsburgh, ...	84	108	60	928,474
	Eclipse, ...	Drift, ...	Gaseous, ..	14			72	84	60	363,212
	Knob, ...	Slope, ...	Gaseous, ..	3			84	96	72	50,273
	Vigilant, ...	Slope, ...	Gaseous, ..	3			84	84	84	82,123
Totals, ...	....	....	....	45	....	....	....	......	......	1,424,082
Pittsburgh-Buffalo Co., ...	Rachel, ...	Shaft, ...	Gaseous, ..	25	Compressed air, .	Pittsburgh, ...	71	75	68	570,000
Diamond Coal and Coke Co., ...	Diamond, ...	Slope, ...	Gaseous, ..	6	Electricity, ...	Pittsburgh, ...	90	108	72	72,028
Clyde Coal Co., ...	Clyde, ...	Drift, ...	Gaseous, ..	10	Electricity, ...	Pittsburgh, ...	72	80	64	226,292
Warner-Leonard Coal Co., ...	Kinder, ...	Slope, ...	Gaseous, ..	4	Electricity, ...	Pittsburgh, ...	84	84	84	100,000

Crucible Coal Co.,	Crucible,	Shaft,	Gaseous,	5 2	Electricity, Compressed air,	Pittsburgh,	90	108	72	120,126
Charles W. Braznell,	Maple Glen,	Drift,	Gaseous,	4	Electricity,	Pittsburgh,	86	108	64	116,000
Bessemer Coke Co.,	Millsboro,	Slope,	Gaseous,	16	Compressed air,	Pittsburgh,	69	80	58	98,521
Rices Landing Coal and Coke Co.,	Rices Landing,	Shaft,	Gaseous,	6	Electricity,	Pittsburgh,	85	90	80	50,786
Reliance Coke Co.,	Reliance,	Shaft,	Gaseous,	1 1	Electricity, Compressed air,	Pittsburgh,	90	100	80	30,516
Grand totals,				185						5,005,651

TABLE 1.—Operators, Location of Mines, Railroads, etc.

Names of Operators and Mines	County	Name of General Superintendent	Post Office	Name of Superintendent	Post Office	Railroad to Mine
Vesta Coal Co.						
Vesta Nos. 1, 2 and 3, ...	Washington, ..	R. B. Drum, ...	California, ...	R. E. Drum, ...	California, ...	P. V. and C.
Vesta No. 4, ...				Joseph Edwards, ...	California, ...	
Vesta No. 5, ...				E. B. Drum, ...	Fredericktown, ...	
Monongahela River Consolidated Coal and Coke Co.						
Crescent, ...	Washington, ..	George W. Schluederberg,	Pittsburgh, ...	James McVicker, ...	California, ...	P. V. and C.
Eclipse, ...				John Black, ...	Roscoe, ...	
Knob, ...				E. S. DeArmit, ...	South Brownsville,.	
Vigilant, ...				James McVicker, ...	California, ...	
Pittsburgh-Buffalo Co.						
Rachel, ...	Washington, ..	D. G. Jones, ...:....	Canonsburg, ...	J. E. Stewart, ...	Marianna, ...	P. V. and C.
Diamond Coal and Coke Co.						
Diamond, ...	Washington, ..	A. R. Budd, ...	Pittsburgh, ...	S. V. Hartman, ...	West Brownsville, ...	P. V. and C.
Clyde Coal Co.						
Clyde, ...	Washington, ..	James G. Geegan, ..	Pittsburgh, ...	John Shaw, ...	Fredericktown, ...	P. V. and C.
Warner-Leonard Coal Co.						
Kinder, ...	Washington, ..	John E. Leonard, ...	Fayette City, ...	John E. Leonard, ...	Fayette City, ...	P. V. and C.
Crucible Coal Co.						
Crucible, ...	Greene, ...	John C. Neff, ...	Pittsburgh, ...	Robert Holliday, ...	Rices Landing, ...	P. V. and C.
Charles W. Braznell						
Maple Glen, ...	Washington, ..	Charles W. Braznell,	Pittsburgh, ...	S. H. Braznell, ...	Shoring, ...	P. V. and C.
Bessemer Coke Co.						
Millsboro, ...	Washington, ..	W. L. Affelder, ...	Pittsburgh, ...	A. B. Kelley, ...	Millsboro, ...	P. V. and C.
Rices Landing Coal and Coke Co.						
Rices Landing, ...	Greene, ...	James R. Black, ...	Rices Landing, ...	James R. Black, ...	Rices Landing, ...	P. V. and C.
Reliance Coke Co.						
Reliance, ...	Washington, ..	G. C. Landis, ...	South Brownsville, ..	G. C. Landis, ...	South Brownsville, ..	P. V. and C.

Fredericktown Coal and Coke Co.:						
Fredericktown, ...	Washington, ..	Charles Butler, ...	Fredericktown, ...	Charles Butler, ...	Fredericktown, ...	P. V. and C.
Lilley Coal and Coke Co.						
Lilley, ...	Washington, ..	Thomas Elliott, ...	South Brownsville, ..	Thomas Elliott, ...	South Brownsville, ..	P. V. and C.

TABLE 2.—Number of tons of coal mined and tons of coke produced, number of days worked, number of persons employed, number killed and injured, quantity of powder, dynamite and permissible explosives used, etc.

Names of Operators and Mines	County	Number of tons of coal shipped to market	Number of tons used at mines for steam and heat	Number of tons sold to local trade and used by employes	Number of tons used in manufacture of coke	Total production of coal in tons	Total production of coke in tons	Number of coke ovens	Number of days worked	Number of employes	Number of fatal accidents	Number of non-fatal accidents	Explosives			Number of horses and mules
													Number of pounds of powder used	Number of pounds of dynamite used	Number of pounds of permissible explosives used	
Vesta Coal Co.																
Vesta No. 1, ...	Washington, ..	79,531	5,678	541	....	85,745	....	......	301	55	....	....	21,436	....	....	6
Vesta No. 2, ...		138,698	5,269	30	....	143,997	....	......	294	102	1	....	33,499	....	....	7
Vesta No. 3, ...		236,843	4,135	....	....	240,978	....	......	293	232	1	....	....	....	62,445	17
Vesta No. 4, ...		1,618,294	31,568	3,708	....	1,653,570	....	......	293	1,233	4	19	....	....	413,392	12
Vesta No. 5, ...		799,294	36,940	1,802	....	838,036	....	......	286	755	7	1	....	....	209,509	7
Totals, ...	....	2,872,660	83,585	6,081	....	2,962,326	....	......	......	2,377	13	20	54,935	....	685,346	49
Monongahela River Consolidated Coal and Coke Co.																
Crescent, ...	Washington, ..	1,021,021	18,448	2,472	....	1,041,941	....	......	278	904	3	....	113,388	....	1,200	......
Eclipse, ...		425,090	4,935	882	....	430,907	....	......	271	462	1	2	53,653	1,500	....	26
Knob, ...		141,946	4,822	229	....	146,997	....	......	271	169	3	3	20,000	....	....	11
Vigilant, ...		102,102	1,982	1,500	....	105,584	....	......	230	109	....	....	12,830	....	....	5
Totals, ...	....	1,690,159	30,187	5,083	....	1,725,429	....	......	......	1,644	7	5	199,871	1,500	1,200	42
Pittsburgh-Buffalo Co.																
Rachel, ...	Washington, ...	444,800	28,100	1,200	150,000	624,100	108,000	160	299	785	7	1	....	....	55,000	......
Diamond Coal and Coke Co.																
Diamond	Washington, ...	314,545	4,434	3,916	....	322,895	....	......	234	324	1	5	37,500	250	....	23

Clyde Coal Co. Clyde, ...	Washington, ...	232,301	1,067	3,731	....	237,099	....	2	286	264	2	2	27,500	....	12,000	14
Warner-Leonard Coal Co. Kinder, ...	Washington, ...	151,573	1,200	....	....	152,773	....	......	271	128	....	....	18,750	....	....	8
Crucible Coal Co. Crucible, ...	Greene, ...	108,410	9,464	910	1,342	120,126	....	......	301	166	....	5	....	....	22,000	33
Charles W. Brasnell Maple Glen, ...	Washington, ...	115,882	560	200	....	116,642	....	......	282	85	1	....	15,000	....	....	5
Bessemer Coke Co. Millsboro, ...	Washington, ...	35,341	4,990	711	68,282	109,324	35,682	257	268	70	2	1	....	....	20,962	22
Rices Landing Coal and Coke Co. Rices Landing, ...	Greene, ...	49,400	1,188	198	....	50,786	....	......	99	142	1	....	30,000	....	30,000	6
Reliance Coke Co. Reliance, ...	Washington, ...	12,997	1,825	618	15,076	30,516	9,301	266	302	140	1	1	11,150	....	11,150	3
Fredericktown Coal and Coke Co. Fredericktown, ...	Washington, ...	2,904	....	....	....	2,904	....	......	63	24	....	....	....	....	1,500	1
Lilley Coal and Coke Co. Lilley, ...	Washington, ...	1,703	90	138	....	1,931	....	......	60	25	....	....	500	....	....	1
Grand totals, ...	....	6,032,675	166,690	22,786	234,700	6,456,851	152,983	685	......	6,174	35	40	395,206	1,750	339,158	207

TABLE 2—Part 2

Names of Operators	County	Number of Boilers					Locomotives				Number of steam engines of all classes	Total horse power	Number of pumps delivering water to surface	Capacity in gallons per minute	Quantity delivered to surface per minute—gallons	Number of electric dynamos	Number of air compressors
		Cylindrical	Horse power	Tubular	Horse power	Total horse power	Gasoline	Steam	Air	Electric							
Vesta Coal Co., ...	Washington, ...	11	1,395	30	8,025	9,420	......	......	15	39	47	10,885	34	6,523	2,895	7	11
Monongahela River Consolidated Coal and Coke Co., ..	Washington, ...	......	......	22	2,410	2,410	......	......	......	27	25	3,492	16	4,172	2,599	6	......
Pittsburgh-Buffalo Co., ...	Washington, ...	......	......	7	3,500	3,500	......	......	23	1	9	4,000	1	700	500	2	4
Diamond Coal and Coke Co.,..	Washington, ...	5	695	1	250	945	......	....	......	3	11	600	2	630	210	2	......
Clyde Coal Co., ...	Washington, ...	....	......	4	550	550	......	......	......	7	2	475	4	600	500	1	......
Warner-Leonard Coal Co., ...	Washington, ...	......	......	2	200	200	......	......	......	......	2	200	2	240	200	1	......
Crucible Coal Co., ...	Greene, ...	......	......	6	1,500	1,500	......	......	......	......	7	2,397	7	2,670	1,790	2	1
Charles W. Braznell, ...	Washington, ...	......	......	1	100	100	......	......	......	1	3	135	1	200	150	1	......
Bessemer Coke Co., ...	Washington, ...	......	......	3	720	720	......	1	......	......	9	575	2	150	100	......	1
Rices Landing Coal and Coke Co., ...	Greene, ...	......	......	4	600	600	......	......	......	2	6	600	1	280	200	2	1
Reliance Coke Co., ...	Washington, ...	......	......	3	1,050	1,050	......	......	......	1	4	1,000	2	100	60	2	1
Totals, ...	....	16	2,090	83	18,905	20,995	......	1	38	81	125	24,359	72	16,265	9,204	26	19

TABLE 3.—Number of Each Class of Employes Inside and Outside of Mines

Names of Operators	County	Inside												Outside								Grand total inside and outside
		Mine foremen	Assistant mine foremen	Fire bosses	Miners	Machine runners	Machine loaders	Machine scrapers	Drivers and runners	Doorboys and helpers	Company men	All other employes	Total inside	Superintendents	Foremen	Blacksmiths and carpenters	Engineers and firemen	Coke employes	Bookkeepers and clerks	All other employes	Total outside	
Vesta Coal Co.,	Washington,	5	13	21	425	69	1,016	69	206	1	178	64	2,067	2	10	29	60	....	8	201	301	2,377
Monongahela River Consolidated Coal and Coke Co.,	Washington,	4	8	16	244	49	783	49	98	4	187	1	1,443	2	4	23	27	....	6	139	201	1,644
Pittsburgh-Buffalo Co.,	Washington,	1	4	10	115	20	300	20	69	11	150	....	700	1	1	4	15	30	4	30	85	785
Diamond Coal and Coke Co.,	Washington,	1	1	3	52	9	160	9	21	2	25	9	292	1	....	5	5	....	1	20	32	324
Clyde Coal Co.,	Washington,	1	1	2	35	9	135	9	12	....	16	12	232	1	1	5	1	....	2	22	32	264
Warner-Leonard Coal Co.,	Washington,	1	....	1	25	3	60	3	8	2	9	1	113	1	1	1	3	....	1	8	15	128
Crucible Coal Co.,	Greene,	1	1	1	....	3	70	3	7	1	18	....	105	1	3	6	9	....	2	40	61	166
Charles W. Braznell,	Washington,	1	....	....	....	4	56	4	5	....	5	1	76	1	....	1	1	....	1	5	9	85
Bessemer Coke Co.,	Washington,	1	....	1	....	5	30	5	4	2	6	4	58	1	....	1	4	....	1	5	12	70
Rices Landing Coal and Coke Co.,	Greene,	1	1	2	1	5	96	5	6	....	12	....	129	1	1	2	2	....	1	6	13	142
Reliance Coke Co.,	Washington,	1	1	....	....	2	20	2	3	....	30	21	80	1	2	3	5	47	8	......	60	140
Fredericktown Coal and Coke Co.,	Washington.	1	....	....	....	1	14	1	1	....	1	....	19	1	....	1	1	....	1	1	5	24
Lilley Coal and Coke Co.,	Washington,	1	....	....	10	....	......	....	1	....	2	....	14	1	1	1	2	....	1	5	11	25
Totals.		20	30	57	907	179	2,740	179	441	23	639	113	5,328	15	24	82	135	77	31	482	846	6,174

TABLE 3.—Part 2

Names of Operators	County	Average Number of Days Worked												
		January	February	March	April	May	June	July	August	September	October	November	December	Total
Vesta Coal Co.,	Washington,	24	23	24	24	24	25	25	25	25	27	22	25	293
Monongahela River Consolidated Coal and Coke Co.,	Washington,	21	21	21	21	21	22	21	24	23	25	20	22	262
Pittsburgh-Buffalo Co.,	Washington,	27	26	25	25	25	25	25	25	27	26	25	18	299
Diamond Coal and Coke Co.,	Washington,	23	24	25	22	5	24	......	14	25	26	23	23	234
Clyde Coal Co.,	Washington,	17	24	23	24	26	25	25	26	25	27	23	21	286
Warner-Leonard Coal Co.,	Washington,	23	18	23	22	26	24	25	25	25	24	17	19	271
Crucible Coal Co.,	Greene,	27	23	26	26	27	25	26	24	26	23	24	24	301
Charles W. Braznell,	Washington,	27	22	16	23	26	25	24	26	25	26	25	17	282
Bessemer Coke Co.,	Washington,	27	24	26	13	17	21	22	26	26	27	26	13	268
Rices Landing Coal and Coke Co.,	Greene,	......	......	......	......	......	......	......	20	24	22	21	12	99
Reliance Coke Co.,	Washington,	26	24	26	25	27	26	21	24	26	27	26	24	302
Fredericktown Coal and Coke Co.,	Washington,	......	......	......	......	......	......	......	......	15	16	18	14	63
Lilley Coal and Coke Co.,	Washington,	......	......	......	......	......	......	......	......	5	15	20	20	60

TABLE 4.—Fatal Accidents Inside and Outside of Mines

Date of accident		Name of Person	Nationality	Occupation	Age	Married or single	Number of widows	Number of orphans	Name of Mine	County	Nature and Cause of Accident in Brief
Jan.	9	Lewis Tote, ...	Hungarian, .	Miner, ...	29	S.	....	....	Vesta No. 4, ..	Washington,..	Fatally injured by being run over by mine cars on the main haulage road. He slipped and fell under the cars and had his back broken.
		Martin Williams, ...	Italian, ...	Engineer, ...	44	M.	1	....	Clyde, ...		Instantly killed by the breaking of a fly wheel of the engine in the engine room. Outside.
Feb.	12	John Kotsick, ...	German, ...	Miner, ...	48	M.	1	3	Eclipse, ...		Instantly killed on the main haulage road by being run over by a loaded trip of mine cars. As the motor passed he stepped out of a man hole in front of the cars.
	13	Lloyd E. Johnston, ..	American, ..	Brakeman, ..	21	M.	1	1	Vesta No. 5, ..		Instantly killed by being run over by an empty trip of cars. When he jumped off he fell under the cars.
	25	Charles Keyes, ...	American, ..	Miner, ...	39	M.	1	2	Vesta No. 3, ..		Fatally injured by being crushed between a mine car and face of the coal in his working place.
April	10	Edward A. Dingle,...	American, ..	Assistant mine foreman,	37	M.	....	5	Vesta No. 5, ..		Instantly killed by fall of roof at face of pillar while examining it.
	11	John Regatta, ...	Italian, ...	Loader, ...	35	S.	....	....	Clyde, ...		Fatally injured at face of room by fall of coal.
	17	Joseph Kennedy, ...	American, ..	Miner, ...	37	M.	1	3	Diamond, ...		Instantly killed by fall of slate at face of room.
	25	Antonio Sessick, ...	Polish, ...	Loader, ...	45	M.	1	4	Vesta No. 4, ..		Instantly killed by fall of slate at face of room.
	28	George Horwat, ...	Hungarian, .	Miner, ...	47	M.	1	2	Knob, ...		Instantly killed by fall of slate at face of room.
	29	James Loftus, ...	American, ..	Machine scraper,	32	S.	....	....	Maple Glen, ...		Instantly killed by fall of coal at face of pillar.
May	15	Charles Faluski, ...	Slavonian, ..	Miner, ...	30	M.	1	1	Crescent, ...		Instantly killed by fall of slate at face of room.
	19	Ralph Conway, ...	American, ..	Driver, ...	17	S.	....	....	Vesta No. 2, ..		Fatally injured by fall of slate at face of pillar.

TABLE 4—Continued

Date of accident		Name of Person	Nationality	Occupation	Age	Married or single	Number of widows	Number of orphans	Name of Mine	County	Nature and Cause of Accident in Brief
May	23	Valentino Scappetrio,.	Italian, ...	Miner, ...	28	M.	1	1	Knob, ...	Washington,..	Fatally injured at face of room by fall of slate.
	24	Mike Molgoy, ...	Slavonian, ..	Loader, ...	30	M.	1	4	Rachel, ...		Instantly killed by fall of slate at face of room.
	27	Joseph Smegala, ...	Hungarian, .	Loader, ...	40	M.	1	5	Vesta No. 5, ..		Instantly killed by fall of coal at face of room.
June	19	Amel Ahoe, ...	Finnish, ...	Loader, ...	45	M.	1	3	Vesta No. 4, ..		Instantly killed by coming in contact with trolley wire.
	20	Lawrence McGuirk, ..	American, ..	Brakeman, ..	20	S.	....	....	Crescent, ...		Instantly killed by being run over by motor on the main haulage road.
	21	Mike Mechenkoft, ...	Russian, ...	Loader, ...	19	S.	....	....	Vesta No. 5, ..		Instantly killed by being crushed between empty car and face of the coal while taking car into his working place.
	28	George Kukula, ...	Slavonian, ..	Motorman, ..	20	S.	....	....	Vesta No. 5, ..		Fatally injured by being caught between motor and car.
July	25	John* Stromansky, ...	Polish, ...	Loader, ...	23	M.	1	1	Vesta No. 4, ..		Instantly killed by being crushed between car and the face of the coal in working place.
	27	Dominic Seatland, ...	Italian, ...	Laborer, ...	32	M.	1	3	Vesta No. 5, ..		Instantly killed by prop falling from a crane that was raising props from the river to the tipple. Outside.
Aug.	19	Harry Rowe, ...	American, ..	Brakeman, ..	20	S.	....	....	Reliance, ...		Instantly killed by car running down the slope.
Sept.	11	Andy Ferginskie, ...	Russian, ...	Miner, ...	35	M.	1	2	Rachel, ...		Instantly killed by fall of roof at face of room.
Oct.	1	Leader Kotchmanock,.	Russian, ...	Miner, ...	19	S.	....	....	Rachel, ...		Instantly killed by fall of slate at face of room.
	11	Steve Mehalock, ...	Russian, ...	Loader, ...	30	S.	....	....	Rachel, ...		Instantly killed by fall of slate at face of pillar.
	22	William Cezar, ...	American, ..	Miner, ...	48	S.	....	....	Rices Landing,	Greene, ...	Instantly killed by fall of slate at face of room.
Nov.	1	John Minabeck, ...	German, ...	Brakeman, ..	22	S.	....	....	Rachel, ...	Washington,..	Fatally injured by being caught between cars and rib on haulage road.
		Louie Barbadori, ...	Italian, ...	Miner, ...	26	M.	1	3	Millsboro, ...		Instantly killed by fall of roof at face of pillar.

Nov.	7	Charles Ioeler, ...	Italian, ...	Laborer, ...	30	M.	1	1	Rachel, ...	Washington, ..	Instantly killed by falling from the platform of the slack conveyor in the boiler house to the floor. Outside.
	13	Lawn Pitcock, ...	American, ..	Brakeman, ..	19	S.	....	....	Vesta No. 5, ..		Instantly killed by being crushed between motor and cars on haulage road when the motor jumped the track.
	14	Gregory Sokolo, ...	Russian, ...	Miner, ...	25	E.	....	....	Rachel, ...		Fatally injured at face of room by fall of slate.
	18	John Fedoria, ...	Russian, ...	Miner, ...	23	M.	1	1	Millsboro, ...		Fatally injured at face of room by fall of rock.
	29	Frank Horwat, ...	Hungarian, .	Miner, ...	33	M.	1	3	Knob, ...		Instantly killed by fall of slate at face of room.
		Alex Pollock, ...	Hungarian, .	Brakeman, ..	23	S.	....	....	Crescent, ...		Instantly killed by being crushed by a motor on the haulage road while making a coupling.

TABLE 5.—Non-Fatal Accidents Inside and Outside of Mines

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Name of Mine	County	Nature and Cause of Accident in Brief
Jan. 4	Mike Sockotch,	Hungarian,	Miner,	23	M.	Millsboro.	Washington,	Left shoulder dislocated and foot bruised by fall of coal at face of room.
17	Charles Rex,	American,	Laborer,	57	M.	Crucible,	Greene,	One rib broken and severely bruised about body by being caught in a belt over pulley. Outside.
29	Louie Hartley,	German,	Miner,	33	M.	Knob,	Washington,	Eye injured by fall of coal striking him at face of room.
	George Bush,	Slavonian,	Driver,	22	S.	Knob,	Washington,	Arm injured by being kicked by mule on haulage road.
Feb. 3	Thomas Davis,	American,	Driver,	28	S.	Crucible,	Greene,	Collar bone broken by being caught by mine cars on narrow side of haulage road.
4	Louie Presllovich,	German,	Driver,	25	S.	Knob,	Washington,	Toe cut off by mine cars on haulage road.
22	Mike Buesko,	Slavonian,	Loader,	25	S.	Eclipse,	Washington,	Face and hand burned by premature blast at face of entry before he could get away.
	John Buesko,	Slavonian,	Loader,	22	S.	Ecilpse,	Washington,	Face and hands burned by premature blast at face of entry.
23	Robert Allison,	American,	Laborer,	19	S.	Vesta No. 4,	Washington,	Arm cut off by being caught with rope that was being replaced on the haulage road.
24	William Matthews,	American,	Roadman,	49	S.	Vesta No. 4,	Washington,	Back and hips bruised by fall of roof on haulage road.
	Hugh Matthews,	American,	Roadman,	20	S.	Vesta No. 4,	Washington,	Leg fractured by fall of roof on haulage road while cleaning up fall.
March 6	Nick Borola,	Italian,	Miner,	33	S.	Clyde,	Washington,	Arm and leg broken by fall of rock at face of room.
17	Nick Bailage,	Hungarian,	Miner,	26	S.	Crucible,	Greene,	Ankle broken and dislocated and hurt internally by fall of slate at face of entry.
22	John Solomon,	Finnish,	Loader,	38	M.	Vesta No. 4,	Washington,	Leg broken by fall of slate at face of room.
April 4	William Switzer,	American,	Brakeman,	24	S.	Vesta No. 4,	Washington,	Arm broken by mine cars jumping track on haulage road.
22	Alph Tennant,	American,	Motorman,	27	S.	Vesta No. 4,	Washington,	Three fingers taken off by being caught between motor and cars on haulage road while making a coupling.

May	2	John Melefsky,	Polish,	Loader,	19	S.	Vesta No. 4,	Washington,	Foot crushed and bruised about body by fall of slate at face of room.
	6	Martin Povish,	Hungarian,	Motorman,	22	S.	Rachel,	Washington,	Both legs broken by being caught by mine cars jumping the track on haulage road.
June	16	Andy Gillis,	Polish,	Brakeman,	22	S.	Vesta No. 4,	Washington,	Thumb cut off by being caught between motor and cars while making a coupling on haulage road.
	27	Mike Fealko,	Hungarian,	Miner,	36	M.	Diamond,	Washington,	Compound fracture of nose and laceration of scalp by being struck by prop that was knocked out by fall of coal at face of room.
July	11	Andy Felner,	Slavonian,	Miner,	46	M.	Crucible,	Greene,	Leg broken by fall of slate at face of room.
	31	Joe Zsupan,	Hungarian,	Loader,	30	S.	Vesta No. 4,	Washington,	Leg broken by fall of roof at face of entry.
Aug.	4	Steve Markes,	Hungarian,	Loader,	30	M.	Vesta No. 5,	Washington,	Leg broken by fall of slate at face of room.
		Steve Kero,	Polish,	Tracklayer,	31	M.	Vesta No. 4,	Washington,	Leg broken by rope swinging on the haulage road. The rope was fouled on a roller and when it let loose caught him.
	7	Matthew Charlton,	English,	Mine foreman,	45	M.	Clyde,	Washington,	Two ribs fractured and compound fracture of humerus by mine cars becoming derailed and catching him as he stood in the entrance to room on main haulage road.
	24	Nick Harrison,	Russian,	Loader,	35	M.	Diamond,	Washington,	Hip broken and lacerated scalp by fall of coal and slate at face of room.
	27	Julius Hervoy,	Hungarian,	Miner,	30	M.	Vesta No. 4,	Washington,	Collar bone and arm broken by fall of roof at face of pillar.
	27	James Gallagher,	American,	Miner,	48	M.	Vesta No. 4,	Washington,	Leg broken and bruised about body by fall of coal at face of pillar.
Sept.	3	Jim Cepperone,	Italian,	Laborer,	37	M.	Crucible,	Greene,	Compound fracture of left ankle by being caught by mine car on the dirt dump. Outside.
	15	Mike Kuley,	Slavonian,	Miner,	29	M.	Vesta No. 4,	Washington,	Ankle dislocated and foot bruised by fall of roof at face of pillar.
Oct.	20	Tony Sagamon,	Italian,	Miner,	46	M.	Vesta No. 4,	Washington,	Leg broken by fall of slate at face of pillar.
	27	William Stapules,	Lithuanian,	Cutter,	31	S.	Vesta No. 4,	Washington,	Leg broken by fall of slate at face of pillar.
	28	Celestine Deserant,	Belgian,	Miner,	46	M.	Vesta No. 4,	Washington,	Leg broken by fall of slate at face of pillar.
Nov.	25	Stanley Kelenosky,	Polish,	Brakeman,	22	S.	Vesta No. 4,	Washington,	Arm fractured by being caught between mine cars on haulage road.
		John Hanus,	Slavonian,	Loader,	33	M.	Vesta No. 4,	Washington,	Arm fractured by fall of rock at face of room.
Dec.	10	Joe Dender,	Belgian,	Miner,	33	M.	Vesta No. 4,	Washington,	Leg broken, bruised about head and body by fall of slate at face of pillar.
	12	Andy Doak,	Russian,	Driver,	35	M.	Diamond,	Washington,	Hip dislocated by fall of slate at face of room.
	15	Harry Kail,	Italian,	Driver,	26	M.	Diamond,	Washington,	Foot bruised by being caught between the bumpers of mine cars.
	19	John Miller,	Slavonian,	Loader,	17	S.	Diamond,	Washington,	Body bruised by being caught between mine cars on haulage road.
	29	Marion Letario,	Italian,	Pumper,	39	S.	Reliance,	Washington,	Bruise of lumbar muscles, fracture of bone of foot by fall of slate on haulage road.

CONDITION OF MINES

VESTA COAL COMPANY

Vesta No .1.—Ventilation and drainage in good condition. All pillar work.

Vesta No. 2.—Ventilation and drainage in good condition. All pillar work.

Vesta No. 3.—Ventilation and drainage satisfactory. All pillar work.

Vesta No. 4.—Ventilation and drainage good. Permissible explosives used exclusively.

Vesta No. 5.—Ventilation and drainage good. Permissible explosives used exclusively.

MONONGAHELA RIVER CONSOLIDATED COAL AND COKE COMPANY

Crescent.—Ventilation and drainage in good condition.

Eclipse.—Ventilation and drainage good throughout the mine.

Knob.—Ventilation and drainage fairly good.

Vigilant.—Ventilation good in some parts, but defective in other parts.

PITTSBURGH-BUFFALO COMPANY

Rachel.—Ventilation very poor in a large portion of the mine, owing to its being split into so many separate divisions. Drainage good. Water lines are used for dampening the dust. Permissible explosives are used exclusively and all shots are fired by shot firers. Safety lamps are used exclusively. Electric lamps were put in use during the year.

DIAMOND COAL AND COKE COMPANY

Diamond.—Ventilation fairly good. Drainage good.

CLYDE COAL COMPANY

Clyde.—Ventilation defective throughout the workings. Improvements are being made at the present time. Drainage fair.

WARNER-LEONARD COAL COMPANY

Kinder.—Ventilation defective throughout the workings. Improvements are being made at the present time. Drainage fair.

CRUCIBLE COAL COMPANY

Crucible.—Ventilation and drainage good. This is a new development and owing to the shaft being sunk close to the river there is a large body of water to be shut off. This is now being done. Permissible explosives, fired by shot firers, are used exclusively. Safety lamps and electric lamps are also used.

CHARLES W. BRAZNELL

Maple Glen.—Ventilation defective, but is being improved. Drainage good.

BESSEMER COKE COMPANY

Millsboro.—Ventilation fair in some sections, but needs to be improved in other sections. Drainage good. Permissible explosives fired by shot firers, are used for blasting. Locked safety lamps are used exclusively by the miners.

RICES LANDING COAL AND COKE COMPANY

Rices Landing.—Ventilation and drainage fair.

RELIANCE COKE COMPANY

Reliance.—Ventilation and drainage good.

FREDERICKTOWN COAL AND COKE COMPANY

Fredericktown.—A new mine. The ventilation system has not yet been put in operation.

LILLEY COAL AND COKE COMPANY

Lilley.—A new mine. The ventilation system has not yet been put in operation. The mine is to be equipped with the latest improved machinery to produce a large tonnage.

IMPROVEMENTS

VESTA COAL COMPANY

Vesta No. 4.—Built 4 overcasts and 130 stone stoppings. Made a traveling way.

Vesta No. 5.—Built 4 overcasts and 80 stone stoppings. Installed a Clifford, steam fan, 20 by 8 feet. Built a concrete fan house, pump house, lamp house and reservoir.

MONONGAHELA RIVER CONSOLIDATED COAL AND COKE COMPANY

Crescent.—Built 8 overcasts, 240 brick stoppings, one sub-station of brick, 33 feet 8 inches by 22 feet 2 inches, one boiler and oil house, 46 feet 6 inches by 18 feet 6 inches, 2 brick pump houses. Installed three 8 by 10 inch Deming triplex plunger pumps; three 25 H. P. Westinghouse motors; two Deming triplex plunger pumps, one 5 by 8 inches, the other 5 by 6 inches; two 2½ by 2 centrifugal pumps; three 10 H. P. Westinghouse motors; one 40 H. P. G. E. motor; one Sullivan short wall mining machine; one 522 H. P. General Electric generator; one 435 H. P. General Electric A. C. motor.

Knob.—Built 4 brick pump houses. Outside: Built one temporary hospital.

CLYDE COAL COMPANY

Clyde.—Built 2 overcasts and 7 stone stoppings. Installed three electric locomotives, one motor generator set, 100 H. P. A. C. motor. Laid 4,600 feet of 40 pound steel rails.

CRUCIBLE COAL COMPANY

Crucible.—Built 10 permanent stoppings. Installed one dynamo, four electric mining machines and four electric pumps.

CHARLES W. BRAZNELL

Maple Glen.—Installed one electric locomotive.

PROSECUTIONS FOR VIOLATION OF THE MINING LAWS

October 31.—G. C. Landis, superintendent, Reliance Coke Company. Charge: Failure to provide a safety device on the rear end of the rear car of a trip being hoisted up the slope. He plead guilty and the court of Washington county fined him $100.00 and costs.

MINE FOREMEN'S, ASSISTANT MINE FOREMEN'S AND FIRE BOSSES' EXAMINATIONS

The annual examination of applicants for certificates of qualification as mine foremen, assistant mine foremen and fire bosses was held in Charleroi, May 6, 7 and 8. The Board of Examiners was composed of F. W. Cunningham, Inspector; Harry C. Drum, Superintendent, and John Stephenson, Miner.

There were 35 applicants for certificates of qualification as mine foremen and assistant mine foremen and 43 applicants for certificates of qualification as fire bosses.

The following persons passed a satisfactory examination and were granted certificates:

MINE FOREMEN

First Grade

Robert Elton Drum, Thomas E. Fitzgerald, Eugene S. DeArmit, Jesse A. Wilson, James C. Sneddon, Ray B. Drum, Charles R. Drum, California; Richard Breckenridge, Fayette City; William E. Dickinson, Roscoe; W. Hartley Jones, Alexander C. Anderson, Charleroi; John D. Stevenson, Stockdale; Edward L. Haas, Arnold City; Walter Ridgway, Frank Wolfe, Allenport.

ASSISTANT MINE FOREMEN

William Parkinson, Harry Humphries, Roy Dick, George F. Young, California; Samuel D. Abercrombie, Coal Center; John J. Gainer, Elco; George Kraft, Charles Anderson, John C. Winn, John W. Livingston, Allenport; Archie Kerr, Fayette City; Alexander F. Dickson, Roscoe.

FIRE BOSSES

Arthur Smith, Robert Elton Drum, Joseph Summers, Samuel D. Abercrombie, Walter Dewar, Eldridge M. Copenhaver, Jacob Breitinger, William J. Smith, Earl Edwards, Robert J. McMurray, Floyd McCallister, George W. Hugney, Joseph Edwards, Jr., John J. Adamson, William Bagshaw, John H. Frazier, Matthew W. Allison, California; Ollie Pettigrew, Coal Center; Ray Ridgway, Charles Balmer, Harry A. Livingston, Edward C. Kelly, John Sowden, Allenport; William Watson, William Wild, Roscoe; Ayers G. Moore, Arnold City; Frank L. May, Charleroi; John McCollum, Stockdale; Matthew Hall, James T. Heffran, Speers; Charles Lohman, Belle Vernon; Alexander Park, Jr., Adam Authers, William H. Roy, John Henry Williams, Fayette City.

TWENTY-SECOND DISTRICT

ALLEGHENY, WESTMORELAND AND FAYETTE COUNTIES

Dravosburg, Pa., February 18, 1914.

Hon. James E. Roderick, Chief of Department of Mines:

Sir: In compliance with the Bituminous Mining Law, I herewith transmit my annual report of the Twenty-second Bituminous District for the year ending December 31, 1913.

Respectfully submitted,

JOHN F. BELL, Inspector.

SUMMARY OF STATISTICS

Number of mines,	23
Number of mines in operation,	22
Number of tons of coal shipped to market,	5,012,214
Number of tons used at mines for steam and heat,	91,899
Number of tons sold to local trade and used by employes,	28,467
Number of tons used in the manufacture of coke,	111,454
Number of tons of coal produced,	5,244,034
Number of tons of coke produced,	77,015
Number of coke ovens,	236
Number of coke ovens in operation,	136
Number of tons of coal produced by pick mining,	1,715,690
Number of tons produced by compressed air machines,	42,466
Number of tons produced by electrical machines,	3,485,878
Number of persons employed inside of mines,	4,551
Number of persons employed outside, including coke workers,	660
Number of persons employed at manufacture of coke,	30
Number of fatal accidents inside of mines,	14
Number of fatal accidents outside,	2
Number of non-fatal accidents inside of mines,	33
Number of non-fatal accidents outside,	....
Number of tons of coal produced per fatal accident inside,	374,574
Number of tons produced per fatal accident outside,	2,622,017
Number of tons produced per fatal accident inside and outside,	327,752
Number of persons employed per fatal accident inside,	325
Number of persons employed per fatal accident outside,	330
Number of persons employed per fatal accident inside and outside,	326
Number of persons employed per non-fatal accident inside,	138
Number of persons employed per non-fatal accident outside,	....
Number of persons employed per non-fatal accident inside and outside,	158
Number of wives made widows,	8
Number of children made orphans,	14
Number of steam locomotives used inside of mines,	....
Number of steam locomotives used outside,	3
Number of compressed air locomotives used inside,	....
Number of compressed air locomotives used outside,	....
Number of electric motors used inside,	42
Number of electric motors used outside,	....
Number of gasoline locomotives used inside,	....
Number of fans in use,	27
Number of furnaces in use,	3
Number of gaseous mines in operation,	15
Number of non-gaseous mines in operation,	7
Number of new mines opened,	....
Number of old mines abandoned,	1

TABLE A

PRODUCTION OF COAL

Names of Operators

	Tons
Pittsburgh Coal Company,	4,055,641
Penn Gas Coal Company,	579,773
Monongahela River Consolidated Coal and Coke Company,	379,188
Banning-Connellsville Coke Company,	72,652
E. R. Weise Coal Company,	61,197
Echard Coal and Coke Company,	43,458
Lake Shore Gas Coal Company,	35,410
R. Marietta Coal Company,	8,510
Bowman Brothers Company,	8,205
Total,	5,244,034

Production by Counties

Westmoreland,	2,314,170
Allegheny,	1,506,696
Fayette,	1,423,168
Total,	5,244,034

TABLE B.—Fatal and non-fatal accidents inside and outside of mines; number of tons of coal produced per accident; number of persons employed; number employed per accident

Names of Operators	Fatal Accidents			Non-Fatal Accidents			Tons of coal produced per fatal accident inside	Tons of coal produced per non-fatal accident inside	Number of employes inside	Number of employes outside	Total number of employes	Number of employes inside per fatal accident	Number of employes outside per fatal accident	Number of employes inside per non-fatal accident	Number of employes outside per non-fatal accident
	Inside	Outside	Total	Inside	Outside	Total									
Pittsburgh Coal Co.,	12	1	13	24	......	24	337,970	168,985	3,732	498	4,230	311	498	156	....
Penn Gas Coal Co.,	1	1	2	6	......	6	579,773	96,629	309	71	380	309	71	52	....
Monongahela River Consolidated Coal and Coke Co.,	1	......	1	3	......	3	379,188	126,396	317	38	355	317	....	106	....
Miscellaneous Companies,	......	......	......	......	......	......	....	....	193	53	246	....	....	....	....
Totals and averages for district,	14	2	16	33	......	33	374,574	158,910	4,551	660	5,211	325	330	138	....

TABLE C.—Classification of Fatal Accidents Inside and Outside of Mines

	Months													
	January	February	March	April	May	June	July	August	September	October	November	December	Totals	Percentages
Causes of Accidents Inside														
Falls of coal,	....	....	....	....	....	....	....	....	1	....	....	1	2	14.29
Falls of slate,	....	1	....	1	....	....	1	....	1	....	....	....	4	28.57
Falls of roof,	....	....	....	....	....	1	....	....	1	1	1	1	5	35.71
Mine cars,	....	....	....	....	1	....	....	1	....	....	....	....	2	14.29
By falling,	....	1	....	....	....	....	....	....	....	....	....	....	1	7.14
Totals,	...	2	....	1	1	1	1	1	3	1	1	2	14	100.00
Causes of Accidents Outside														
Cars,	....	....	....	1	....	....	1	....	....	....	....	....	2	100.00
Totals,	....	....	....	1	....	....	1	....	....	....	....	....	2	100.00
Grand totals inside and outside,	....	2	....	2	1	1	2	1	3	1	1	2	16	......

TABLE D.—Classification of Non-Fatal Accidents Inside and Outside of Mines

	Months													
	January	February	March	April	May	June	July	August	September	October	November	December	Totals	Percentages
Causes of Accidents Inside														
Falls of coal,	....	....	....	1	....	3	....	1	1	....	....	....	6	18.18
Falls of slate,	1	2	....	4	....	1	2	3	1	2	1	....	17	51.52
Falls of roof,	....	....	....	....	....	....	....	....	....	....	....	1	1	3.03
Mine cars,	....	....	....	....	....	3	....	....	....	1	2	....	6	18.18
Mules,	....	....	....	....	....	....	....	....	....	....	....	1	1	3.03
Struck by piece of coal,	....	1	....	....	....	....	....	....	....	....	....	....	1	3.03
By falling,	....	....	....	....	....	....	....	....	1	....	....	....	1	3.03
Totals,	1	3	....	5	....	7	2	4	3	3	3	2	33	100.00
Causes of Accidents Outside (No Accidents)														

TABLE E.—Occupations of Persons Killed or Fatally Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
Inside													
Miners,	....	1	....	....	....	1	....	1	2	1	....	1	7
Machine loaders,	....	1	....	1	1	....	1	....	1	....	....	1	6
Motormen,	....	....	....	....	....	....	....	....	....	....	1	....	1
Totals,	....	2	....	1	1	1	1	1	3	1	1	2	14
Outside													
Car pushers,	....	....	....	1	....	....	....	....	....	....	....	....	1
Brakemen,	....	....	....	....	....	....	1	....	....	....	....	....	1
Totals,	....	....	....	1	....	....	1	....	....	....	....	....	2
Grand totals inside and outside,	....	2	....	2	1	1	2	1	3	1	1	2	16

TABLE F.—Occupations of Persons Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
Inside													
Miners,	....	2	....	4	....	1	1	2	2	....	....	....	12
Machine loaders,	1	1	....	1	....	3	1	2	....	2	2	....	13
Drivers and runners,	....	....	....	....	....	1	....	....	....	1	....	2	4
Doorboys and helpers,	....	....	....	....	....	....	....	....	....	....	1	....	1
Roadmen,	....	....	....	....	....	....	....	....	1	....	....	....	1
Brakemen,	....	....	....	....	....	2	....	....	....	....	....	....	2
Totals,	1	3	....	5	....	7	2	4	3	3	3	2	33
Outside (No Accidents)													

TABLE G.—Nationality of Persons Killed or Fatally Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
American,	....	....	....	1	....	....	....	....	1	....	....	....	2
English,	....	....	....	....	....	....	....	....	....	....	1	....	1
Polish,	....	....	....	1	1	....	....	....	1	....	....	....	3
Hungarian,	....	....	....	....	....	....	....	....	....	....	....	1	1
Italian,	....	1	....	....	....	....	1	....	1	1	....	....	4
Slavonian,	....	....	....	....	....	....	....	1	....	....	....	....	1
Austrian,	....	....	....	....	....	1	....	....	....	....	....	1	2
Russian,	....	....	....	....	....	....	1	....	....	....	....	....	1
Granish,	....	1	....	....	....	....	....	....	....	....	....	....	1
Totals,	....	2	....	2	1	1	2	1	3	1	1	2	16

TABLE H.—Nationality of Persons Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
American,	....	....	....	....	....	3	....	....	1	....	2	1	7
English,	....	....	....	....	....	1	....	....	....	....	....	....	1
German,	....	....	....	....	....	....	....	1	....	....	....	....	1
Polish,	....	1	....	1	....	....	....	....	....	2	....	....	4
Hungarian,	....	1	....	....	....	....	2	....	....	....	....	....	3
Italian,	....	1	....	2	....	1	....	1	1	....	....	....	6
Slavonian,	1	....	....	....	....	....	....	1	....	....	1	....	3
Austrian,	....	....	....	2	....	2	....	1	1	....	....	....	6
Granish,	....	....	....	....	....	....	....	....	....	....	....	1	1
Horwat,	....	....	....	....	....	....	....	....	....	1	....	....	1
Totals,	1	3	....	5	....	7	2	4	3	3	3	2	33

TABLE I.—Operators and mines, kind of openings, type and size of fans, size of furnaces, volume of air produced by fan or furnace per minute, number of splits of air currents and number of persons employed inside

Names of Operators and Mines	Kind of opening	Gaseous or non-gaseous	Method of ventilation	Diameter of fan in feet and inches	Width of blades in feet and inches	Depth of blades in feet and inches	Number of revolutions per minute	Water gauge developed—in inches	Name of fan	Power used	Area of furnace bars in square feet	Number of splits of air currents	Number of cubic feet of air per minute entering the mine at inlet	Total number of cubic feet of air per minute circulating in all the splits	Number of cubic feet of air per minute passing out at outlet	Number of persons employed inside
Pittsburgh Coal Co.																
Banning No. 1,	Slope,	Gaseous,	Fan,	16.0	5.0	6.0	155	4.5	Clifford, Capell,	Electricity,	..	12	170,100	118,820	210,000	276
Banning No. 2,	Slope,	Gaseous,	Fan,	16.0	8.0	3.75	172	4.1	Capell,	Steam,	..	16	179,560	112,140	222,500	450
Banning No. 3,	Slope,	Gaseous,	Fan,	25.0	7.5	6.0	92	3.8	Vulcan,	Steam,	..	9	139,100	71,280	144,300	299
Euclid,	Shaft,	Gaseous,	Fan,	13.0	7.0	3.0	160	3.0	Capell,	Steam,	..	9	150,650	107,860	170,000	149
Eureka,	Drift,	Non-gas.,	5 Fans,	8.0	1.5	3.75	300	.7	Stine,	Electricity,		8	104,600	99,250	169,100	224
				8.0	1.5	3.75	282	.4	Stine,	Electricity,						
				6.0	1.5	3.0	340	.25	Stine,	Electricity,						
				5.0	.75	2.5	340	.25	Stine,	Electricity,						
				16.0	5.6	4.0	45	......	Brazil,	Steam,						
Forest Hill,	Drift,	Gaseous,	Fan,	12.0	5.5	2.9	196	3.3	Capell,	Electricity,	..	5	86,740	65,240	98,200	246
Ocean No. 2,	Drift,	Gaseous,	2 Fans,	12.0	5.0	3.25	162	2.35	Capell,	Electricity,	..	9	113,180	70,450	155,400	282
				18.5	6.5	2.9	184	3.6								
Ocean No. 5,	Drift,	Gaseous,	2 Fans,	8.0	1.5	3.6	450	1.9	Stine,	Electricity,	..	9	132,360	77,000	139,400	341
				7.0	1.5	2.9	418	.85								
Shaner,	Slope,	Gaseous,	3 Fans,	10.0	4.3	3.4	206	1.75	Capell,	Steam,		9	115,500	82,160	161,500	285
				8.0	1.5	3.75	280	.9	Stine,	Electricity,						
				8.0	4.0	2.0	242	1.0	Capell,	Electricity,						
Waverly,	Shaft,	Gaseous,	Fan,	20.0	7.0	5.5	88	1.6	Brazil,	Steam,	..	7	86,610	65,230	94,350	173
West Newton,	Shaft,	Gaseous,	Fan,	20.0	7.0	6.0	100	2.85	Brazil,	Steam,	..	4	57,490	51,460	79,750	226
Wick Haven,	Shaft,	Gaseous,	Fan,	15.0	4.0	5.0	135	3.3	Jeffrey,	Steam,	..	7	122,400	75,050	126,000	244
Yough Slope,	Slope,	Gaseous,	Fan,	16.0	5.6	4.5	119	2.3	Pollock,	Steam,	..	5	93,600	39,120	108,000	174
Penn Gas Coal Co.																
Penn Gas No. 3,	Slope,	Gaseous,	Fan,	20.0	8.0	3.87	92	2.3	Clifford, Capell,	Steam,	..	14	175,940	111,840	192,000	320

Monongahela River Consolidated Coal and Coke Co.																
Yough No. 2,	Slope,	Gaseous,	2 Fans,	20.0 7.0	7.5 1.5	5.0 3.3	72 355	1.45 1.0	Pollock, Stine,	Steam, Electricity,		6	89,000	51,540	138,500	242
Banning-Connellsville Coke Co.																
Wineland Nos. 1, 2 and 3,	Drift.	Non-gas.,	Natural,	......	......	......	......	......	....	....	..	2	36,000	21,200	*	29
E. R. Weise Coal Co.																
Gaffey,	Drift,	Gaseous,	Fan,	4.0	1.2	1.7	740	.5	Stine,	Electricity,	..	2	25,720	19,280	26,000	52
Echard Coal and Coke Co.																
Murphy,	Drift,	Non-gas.,	Fan,	12.0	4.0	3.0	72	.1	Brazil,	Steam,	..	3	26,220	20,250	*	35
Lake Shore Gas Coal Co.																
Dravo,	Drift,	Non-gas.,	Furnace,	......	......	......	......	......	....	....	40	..	*	*	*	12
Painter,	Drift,	Non-gas.,	Furnace,	......	......	......	......	......	....	....	48	1	9,500	6,500	10,000	22
R. Marietta Coal Co.																
Dilworth,	Drift,	Non-gas.,	Furnace,	......	......	......	......	......	....	....	30	..	*	*	*	22
Bowman Brothers Co.																
Bowman,	Drift,	Non-gas.,	Fan,	4.0	1.2	1.3	300	0.3	American,	Electricity,	..	1	16,000	6,000	*	22

*No measurements taken.

TABLE J.—Mines using coal cutting machines, power used, geological and local names of seams, thickest and thinnest seams where machines are used, and the approximate number of tons produced by machines

Names of Operators	Names of Mines	Kind of opening	Gaseous or non-gaseous	Number of mining machines used	Power used by machines	Geological and local names of seams	Average thickness in inches	Height of Seam in Inches		Approximate number of tons produced by machines
								Thickest	Thinnest	
Pittsburgh Coal Co.,	Banning No. 1,	Slope,	Gaseous,	13	Electricity,	Pittsburgh,	84	96	72	204,792
	Banning No. 2,	Slope,	Gaseous,	17			93	102	84	360,385
	Banning No. 3.	Slope,	Gaseous,	12			84	96	66	218,318
	Euclid,	Shaft,	Gaseous,	9			72	95	66	98,865
	Eureka,	Drift,	Non-gas.,	8			84	96	72	196,384
	Forest Hill,	Drift,	Gaseous,	11			60	72	55	202,894
	Ocean No. 2,	Drift,	Gaseous,	12			72	72	72	361,706
	Ocean No. 5,	Drift,	Gaseous,	12			60	72	55	318,121
	Shaner,	Slope,	Gaseous,	8			62	76	48	168,372
	Waverly,	Shaft,	Gaseous,	7			84	96	72	137,508
	West Newton,	Shaft,	Gaseous,	9			70	77	62	190,872
	Wick Haven,	Shaft,	Gaseous,	8			93	102	84	235,551
	Yough Slope,	Slope,	Gaseous,	8			70	77	62	121,155
Totals,				134						2,814,923
Penn Gas Coal Co.,	Penn Gas No. 3,	Slope,	Gaseous,	11	Electricity, Compressed air,	Pittsburgh,	69	84	62	424,660
Monongahela River Consolidated Coal and Coke Co.,	Yough No. 2,	Slope,	Gaseous,	11	Electricity,	Pittsburgh,	72	75	65	369,716

E. R. Weise Coal Co.,	Guffey,	Drift,	Gaseous,	1	Electricity,	Pittsburgh,	70	77	62	16,045
Bowman Brothers Co.,	Bowman,	Drift,	Non-gas.,	1	Electricity,	Pittsburgh,	66	72	60	3,000
Grand totals,				158						3,528,244

TABLE 1.—Operators, Location of Mines, Railroads, etc.

Names of Operators and Mines	County	Name of General Superintendent	Post Office	Name of Superintendent	Post Office	Railroad to Mine
Pittsburgh Coal Co.						
Banning No. 1,	Fayette,	George W. Schluederberg,	Pittsburgh,	David Ferguson,	Van Meter,	Y. D. of P. and L. E.
Banning No. 2,	Fayette,			William Kelvington,	Whitsett,	Y. D. of P. and L. E.
Banning No. 3,	Westmoreland,			David Ferguson,	Van Meter,	Y. D. of P. and L. E.
Euclid,	Westmoreland,			William Blower,	Fitz Henry,	B. and O.
Eureka,	Westmoreland,			Samuel McKay,	Smithton,	B. and O.
Forest Hill,	Allegheny,			R. C. Smith,	Smithdale,	D. of P. and L. E.
Ocean No. 1,*	Westmoreland,			Alexander McClymont	Yohoghany,	B. and O.
Ocean No. 2,	Allegheny,			Edward Ryan,	Scott Haven,	D. of P. and L. E.
Ocean No. 5,	Allegheny,			R. C. Smith,	Smithton,	D. of P. and L. E.
Shaner,	Westmoreland,			Alexander McClymont	Yohoghany,	B. and O.
Waverly,	Westmoreland,			Samuel McCay,	Smithton,	B. and O.
West Newton,	Westmoreland,			John Hauser,	West Newton,	Y. D. of P. and L. E.
Wick Haven,	Fayette,			William Kelvington,	Whitsett,	Y. D. of P. and L. E.
Yough Slope,	Westmoreland,			John Hauser,	West Newton,	B. and O.
Penn Gas Coal Co.						
Penn Gas No. 3,	Westmoreland,	A. P. Cameron,	Irwin,	J. L. Taylor,	Lowber,	Penna., D. W. P. Div.
Monongahela River Consolidated Coal and Coke Co.						
Yough No. 2,	Allegheny,	George W. Schluederberg,	Pittsburgh,	Peter Crockett,	Elizabeth,	Y. D. of P. and L. E.
Banning-Connellsville Coke Co.						
Wineland Nos. 1, 2 and 3,	Fayette,	R. W. Gilmore,	Uniontown,	W. H. Watt,	Banning,	B. and O.
E. R. Weise Coal Co.						
Guffey,	Westmoreland,			E. R. Weise,	Robbins,	B. and O.
Echard Coal and Coke Co.						
Murphy,	Fayette,	Joseph B. Echard,	Connellsville,	G. M. Davis,	Star Junction,	Washington Run
Lake Shore Gas Coal Co.						
Dravo,†	Allegheny,			F. R. Wisser,	Buena Vista,	Y. D. of P. and L. E.
Painter,						

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*Idle.

†Idle latter part of year.

R. Marietta Coal Co.						
Dilworth,‡	Westmoreland,...	R. Marietta, ...	Connellsville, ...	W. P. Stillwagon, ..	Buena Vista, ...	B. and O.
Bowman Brothers Co.						
Bowman, ...	Allegheny, ...	S. M. Bowman, ...	McKeesport, ...	Adam Gebhart, ...	McKeesport, ...	....

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‡Abandoned.

TABLE 2.—Number of tons of coal mined and tons of coke produced, number of days worked, number of persons employed, number killed and injured, quantity of powder, dynamite and permissible explosives used, etc.

Names of Operators and Mines	County	Number of tons of coal shipped to market	Number of tons used at mines for steam and heat	Number of tons sold to local trade and used by employes	Number of tons used in manufacture of coke	Total production of coal in tons	Total production of coke in tons	Number of coke ovens	Number of days worked	Number of employes	Number of fatal accidents	Number of non-fatal accidents	Explosives			Number of horses and mules
													Number of pounds of powder used	Number of pounds of dynamite used	Number of pounds of permissible explosives used	
Pittsburgh Coal Co.																
Banning No. 1,	Fayette,	326,934	2,239	286	....	329,459	....	......	224	385	2	2	....	....	53,125	26
Banning No. 2,	Fayette,	600,308	20,381	1,313	....	621,997	....	......	256	581	....	2	....	....	38,617	40
Banning No. 3,	Westmoreland,	349,255	5,813	1,253	....	356,321	....	......	243	350	1	4	....	....	53,125	26
Euclid,	Westmoreland,	148,658	5,831	667	....	155,156	....	......	233	175	2	1	5,000	....	1,600	10
Eureka,	Westmoreland,	296,924	3,660	526	....	301,110	....	......	225	302	2	2	47,600	125	50	22
Forest Hill,	Allegheny,	262,498	2	488	....	262,988	....	......	272	267	1	....	12,000	....	500	24
Ocean No. 2,	Allegheny,	427,848	......	460	....	428,308	....	......	275	403	3	....	141,251	150	1,350	32
Ocean No. 5,	Allegheny,	392,581	......	16	....	392,597	....	......	269	400	....	5	20,125	....	....	22
Shaner,	Westmoreland,	238,253	10,946	908	....	250,107	....	......	216	296	....	....	5,150	....	150	20
Waverly,	Westmoreland,	167,471	4,692	2,229	....	174,392	....	......	220	243	....	2	22,900	75	2,450	16
West Newton,	Westmoreland,	263,362	7,630	3,250	....	274 242	....	......	242	311	....	2	7,000	....	1,500	21
Wick Haven,	Fayette,	350,605	3,216	1,781	....	355,602	....	......	245	311	1	....	....	....	22,062	27
Yough Slope,	Westmoreland,	145,297	5,011	8,054	....	158,362	....	......	225	206	1	4	1,000	....	8,000	14
Totals,	....	3,969,989	69,421	16,231	....	4,065,641	....	......	......	4,230	13	24	262,026	350	182,519	300
Penn Gas Coal Co.																
Penn Gas No. 8,	Westmoreland,	560,276	17,395	2,102	....	579,773	....	100	299	380	2	6	....	....	40,000	28
Monongahela River Consolidated Coal and Coke Co.																
Yough No. 2,	Allegheny,	372,649	4,944	1,595	....	379,188	....	......	263	355	1	3	37,500	20	....	25
Banning-Connellsville Coke Co.																
Wineland Nos. 1, 2 and 3,	Fayette,	4,243	100	200	68,109	72,652	42,057	76	235	45	....	....	....	....	7,000	8

E. R. Weise Coal Co.																
Guffey,	Westmoreland,	61,197	......	......	....	61,197	....	......	259	56	....	....	6,000	....	....	5
Echard Coal and Coke Co.																
Murphy,	Fayette,	....	9	104	43,345	43,458	34,958	60	301	59	....	....	2,420	....	....	3
Lake Shore Gas Coal Co.																
Dravo,	Allegheny,	2,766	......	30	....	2,796	....	......	40	14	....	....	270	....	....	1
Painter,	Allegheny,	32,594	20	......	....	32,614	....	......	265	32	....	....	3,200	....	....	2
Totals,	....	35,360	20	30	....	35,410	....	......	......	46	....	....	3,470	....	....	3
R. Marietta Coal Co.																
Dilworth,	Westmoreland,	8,500	10	......	....	8,510	....	......	129	25	....	....	600	....	....	3
Bowman Brothers Co.																
Bowman,	Allegheny,	....	......	8,205	....	8,205	....	......	204	15	....	....	1,250	....	....	2
Grand totals,	....	5,012,214	91,899	28,467	111,454	5,244,034	77,015	286	......	5,211	16	33	313,266	370	229,519	377

TABLE 2—Part 2

Names of Operators	County	Number of Boilers					Locomotives				Number of steam engines of all classes	Total horse power	Number of pumps delivering water to surface	Capacity in gallons per minute	Quantity delivered to surface per minute—gallons	Number of electric dynamos	Number of air compressors
		Cylindrical	Horse power	Tubular	Horse power	Total horse power	Gasoline	Steam	Air	Electric							
Pittsburgh Coal Co., ...	Westmoreland, . Allegheny, ... Fayette, ...	....	......	44	6,490	6,490	......	......	......	34	43	6,966	37	11,221	7,341	12	1
Penn Gas Coal Co., ...	Westmoreland, .	......	......	9	1,350	1,350	......	1	......	4	10	1,745	3	1,680	900	3	3
Monongahela River Consolidated Coal and Coke Co., ..	Allegheny, ...	......	......	5	700	700	......	1	......	3	7	402	......	......	......	1	......
Banning - Connellsville Coke Co., ...	Fayette, ...	1	16	....	....	16	......	......	......	1	......	....	......	......	......	......	......
E. R. Weise Coal Co., ...	Westmoreland, .	......	......	....	....	....	......	......	......	......	......	......	1	200	100	......	......
Echard Coal and Coke Co., ..	Fayette, ...	1	40	....	....	40	......	1	......	......	1	20	......	......	......	......	......
Totals, ...	....	2	56	58	8,540	8,596	......	3	......	42	61	9,133	41	13,101	8,341	16	4

TABLE 3.—Number of Each Class of Employes Inside and Outside of Mines

Names of Operators	County	Inside												Outside								Grand total inside and outside
		Mine foremen	Assistant mine foremen	Fire bosses	Miners	Machine runners	Machine loaders	Machine scrapers	Drivers and runners	Doorboys and helpers	Company men	All other employes	Total inside	Superintendents	Foremen	Blacksmiths and carpenters	Engineers and firemen	Coke employes	Bookkeepers and clerks	All other employes	Total outside	
Pittsburgh Coal Co., ...	Westmoreland, Allegheny, ... Fayette, ...	13	27	46	945	116	1,737	116	236	57	291	148	3,732	8	12	66	57	....	16	339	498	4,230
Penn Gas Coal Co., ...	Westmoreland,	1	1	5	90	13	110	13	26	4	46	....	309	1	....	6	16	....	2	46	71	380
Monongahela River Consolidated Coal and Coke Co., ..	Allegheny, ...	1	3	3	86	11	109	11	26	3	64	....	317	1	1	7	6	....	1	22	38	355
Banning - Connellsville Coke Co., ...	Fayette, ...	1	..	..	28	....	......	....	3	....	2	....	34	1	....	1	....	8	....	1	11	45
E. R. Weise Coal Co., ...	Westmoreland,	1	..	1	28	2	14	....	2	....	3	1	52	....	....	1	....	....	....	3	4	56
Echard Coal and Coke Co., ..	Fayette, ...	1	..	..	25	....	......	....	3	....	2	2	33	1	1	1	....	22	1	......	26	59
Lake Shore Gas Coal Co., ...	Allegheny, ...	2	..	..	36	....	......	....	2	....	1	....	41	1	1	....	....	....	1	2	5	46
R. Marietta Coal Co., ...	Westmoreland,	1	..	..	18	....	......	....	2	....	1	....	22	1	....	1	....	....	1	......	3	25
Bowman Brothers Co., ...	Allegheny, ...	1	..	..	8	....	......	....	2	....	....	....	11	1	....	....	....	....	1	2	4	15
Totals, ...	....	22	31	55	1,264	142	1,970	140	302	64	410	151	4,551	15	15	83	79	30	23	415	660	5,211

TABLE 3.—Part 2

Names of Operators	County	Average Number of Days Worked												
		January	February	March	April	May	June	July	August	September	October	November	December	Total
Pittsburgh Coal Co.,	Fayette, Westmoreland, Allegheny,	20	17	18	21	21	22	22	23	21	21	20	16	242
Penn Gas Coal Co.,	Westmoreland,	26	18	25	25	26	25	26	26	25	26	25	26	299
Monongahela River Consolidated Coal and Coke Co.,	Allegheny,	26	21	22	24	24	22	19	25	23	20	21	15	262
Banning-Connellsville Coke Co.,	Fayette,	27	24	25	22	26	22	16	17	12	8	18	18	235
E. R. Weise Coal Co.,	Westmoreland,	23	18	22	21	22	24	25	24	21	21	20	18	259
Echard Coal and Coke Co.,	Fayette,	27	24	24	21	27	25	26	26	26	27	22	26	301
Lake Shore Gas Coal Co.,	Allegheny,	19	11	22	11	11	12	12	18	12	14	10	6	153
R. Marietta Coal Co.,	Westmoreland,	27	25	28	24	25	......	......	......	......	......	......	......	129
Bowman Brothers Coal Co.,	**Allegheny,**	25	21	14	4	15	7	8	11	21	27	24	27	204

TABLE 4.—Fatal Accidents Inside and Outside of Mines

Date of accident		Name of Person	Nationality	Occupation	Age	Married or single	Number of widows	Number of orphans	Name of Mine	County	Nature and Cause of Accident in Brief
Feb.	11	Max Kubbatte, ...	Italian, ...	Loader, ...	30	S.	....	....	Wick Haven, ...	Fayette, ...	Fatally injured by fall of slate at face of room while preparing to set a post. Right leg crushed below knee and left leg fractured above knee. Died in hospital.
	20	Anthony Rounika, ...	Granish, ...	Miner, ...	31	S.	....	....	Euclid, ...	Westmoreland,.	Fatally injured by falling and striking his head against a piece of slate in gob. Died the following day from loss of blood.
April	18	John Kavesky, ...	Polish,......	Loader, ...	46	M.	1	4	Euclid, ...	Westmoreland,.	Killed instantly by fall of slate at face of room.
		Thomas Bell, ...	American, ..	Car pusher,..	16	S.	....	....	Forest Hill, ...	Allegheny, ...	Killed instantly by cars on the tipple. He attempted to get on the front car and slipped and fell in front of the trip. Outside.
May	8	George Kabart, ...	Polish,......	Loader, ...	44	S.	....	....	Banning No. 3,..	Westmoreland,.	Killed instantly on the main haulage by being run over by a motor. He fell in front of it when getting off.
June	25	Albert Speciah, ...	Austrian, ..	Miner, ...	40	M.	1	....	Yough No. 2, ...	Allegheny, ...	Killed by fall of roof on pillar work.
July	26	Andy Kesko, ...	Russian, ...	Loader, ...	23	S.	....	....	Banning No. 1,..	Fayette, ...	Killed instantly by fall of slate at face of room while working under loose slate.
	27	Joseph Dantoni, ...	Italian, ...	Brakeman, ..	22	S.	....	....	Penn Gas No. 3,	Westmoreland,.	Fatally injured by falling through bottom of car near the tipple and being run over. Outside.
Aug.	9	Peter Bombic, ...	Slavonian, ..	Miner, ...	27	S.	....	....	Banning No. 1,..	Fayette, ...	Fatally injured by falling between car and pillar. Died September 14.
Sept.	5	John Zimmer, ...	American, ..	Miner, ...	51	M.	1	....	Eureka, ...	Westmoreland,.	Fatally injured by fall of slate on pillar work while knocking coal that had been shot. Died following day.
	13	Abe Benosky, ...	Polish,......	Loader, ...	38	M.	1	1	Ocean No. 2, ...	Allegheny, ...	Fatally injured by coal falling on his toe at face of room. Died October 6 from lock jaw.
	23	Frank Barberi, ...	Italian, ...	Miner, ...	28	M.	1	2	Ocean No. 2, ...	Allegheny, ...	Fatally injured by fall of roof on pillar work. Died October 7.

TABLE 4—Continued

Date of accident		Name of Person	Nationality	Occupation	Age	Married or single	Number of widows	Number of orphans	Name of Mine	County	Nature and Cause of Accident in Brief
Oct.	29	Mike Denoble, ...	Italian, ...	Miner, ...	29	M.	1	1	Ocean No. 2, ...	Allegheny, ...	Killed by fall of roof on pillar work while drawing posts.
Nov.	13	Ross Grundy, ...	English, ...	Motorman, ..	25	S.	....	....	Penn Gas No. 3,	Westmoreland, .	Killed instantly by fall of roof on main parting near foot of slope while changing the headlight of his motor.
Dec.	12	John Beabel, ...	Hungarian, .	Miner, ...	87	M.	1	1	Eureka, ...	Westmoreland, .	Killed instantly by fall of coal at face of pillar while undermining.
	16	Mike Dancyn, ...	Austrian, ..	Loader, ...	45	M.	1	3	Yough Slope, ..	Westmoreland, .	Killed by fall of roof at face of room.

TABLE 5.—Non-Fatal Accidents Inside and Outside of Mines

Date of accident		Name of Person	Nationality	Occupation	Age	Married or single	Name of Mine	County	Nature and Cause of Accident in Brief
Jan.	17	George Lutza,	Slavonian,	Loader,	30	M.	Banning No. 1,	Fayette,	Leg broken at face of room by fall of slate.
Feb.	1	John Orslinski,	Polish,	Miner,	27	S.	Banning No. 3,	Westmoreland,	Leg fractured by fall of slate on pillar work.
	10	Steve Turic,	Hungarian,	Miner,	30	M.	Banning No. 1,	Fayette,	Leg fractured by fall of slate on pillar work.
	14	Tony Ferni,	Italian,	Loader,	48	M.	Ocean No. 5,	Allegheny,	Wrist bone fractured by coal falling on him.
April	17	Andy Machinah,	Polish,	Loader,	60	M.	Euclid,	Westmoreland,	Leg broken and scalp injured by fall of coal at face of room.
	12	Delmonia Rebolus,	Italian,	Miner,	44	M.	Waverly,	Westmoreland,	Three ribs broken by fall of slate at face of pillar.
		Mike Sapura,	Austrian,	Miner,	23	S.	Yough No. 2,	Allegheny,	Leg broken by fall of slate on pillar work.
	21	Andy Floro,	Italian,	Miner,	19	S.	Banning No. 3,	Westmoreland,	Leg broken by fall of slate at face of room.
	23	John Luiski,	Austrian,	Miner,	41	M.	Yough Slope,	Westmoreland,	Leg fractured by a fall of slate at face of room.
June	9	James Mason,	English,	Loader,	22	S.	Yough No. 2,	Allegheny,	Ankle broken and chest injured by fall of slate at face of room.
	11	Joseph Turno,	American,	Driver,	17	S.	Waverly,	Westmoreland,	Collar bone broken by cars on entry while attempting to pass trip on the narrow side of entry.
		Alexander Farmer,	American,	Brakeman,	23	M.	Yough No. 2,	Allegheny,	Foot crushed by car on entry. While making an attempt to cut the car off trip he missed his footing.
	23	John Thil,	American,	Brakeman,	21	S.	Ocean No. 5,	Allegheny,	Leg fractured between car and rib on entry.
		John Plahuta,	Austrian,	Loader,	50	M.	Yough Slope,	Westmoreland,	Leg fractured by fall of coal at face of room while pulling loose coal down.
	25	Angelo Boni,	Italian,	Miner,	37	S.	Eureka,	Westmoreland,	Leg crushed by fall of coal.
	27	Frank Eberzink,	Austrian,	Loader,	16	S.	Yough Slope,	Westmoreland,	Leg fractured by fall of coal at face of room.
July	3	Gabor Oras,	Hungarian,	Loader,	37	M.	Banning No. 2,	Fayette,	Leg fractured by fall of slate at face of room while shearing.

TABLE 5—Continued

Date of accident		Name of Person	Nationality	Occupation	Age	Married or single	Name of Mine	County	Nature and Cause of Accident in Brief
July	7	Andy Lorance,	Hungarian,	Miner,	24	S.	Penn Gas No. 3,	Westmoreland,	Collar bone broken by fall of slate on pillar work.
Aug.	1	Mark Margo,	Italian,	Miner,	27	S.	Penn Gas No. 3,	Westmoreland,	Collar bone broken by fall of slate on pillar work.
	2	Steve Boris,	Slavonian,	Miner,	44	M.	Penn Gas No. 3,	Westmoreland,	Arm and collar bone broken by fall of slate on pillar work while drawing posts.
	3	Carl Bewalt,	German,	Loader,	24	S.	Banning No. 3,	Westmoreland,	Spine fractured by fall of slate at face of room.
	21	Albino Sartori,	Austrian,	Loader,	18	S.	Eureka,	Westmoreland,	Leg broken by fall of coal at face of room while shearing.
Sept.	10	Pete Bonitti,	Italian,	Miner,	19	S.	Ocean No. 5,	Allegheny,	Foot injured by fall of slate on pillar work.
	11	Jacob Murphy,	American,	Roadman,	50	M.	West Newton,	Westmoreland,	Leg broken by fall of a slab of coal while timbering on entry.
	16	Peter Mezella,	Austrian,	Miner,	26	M.	West Newton,	Westmoreland,	Collar bone broken. He slipped and fell while pushing a car on entry.
Oct.	6	Stiny Koskosky,	Polish,	Loader,	40	M.	Penn Gas No. 3,	Westmoreland,	Leg broken by fall of slate near face of room.
	24	Steve Washinski,	Polish,	Loader,	35	M.	Penn Gas No. 3,	Westmoreland,	Thigh broken and hand injured by fall of slate at face of entry.
	27	Frank Novacic,	Horwat,	Driver,	23	S.	Banning No. 2,	Fayette,	Leg broken while pulling car out of room.
Nov.	13	Joseph Bigham,	American,	Doorboy,	16	S.	Penn Gas No. 3,	Westmoreland,	Leg broken by falling when he jumped off car.
	28	Mike Kushaven,	Slavonian,	Loader,	36	S.	Banning No. 3,	Westmoreland,	Both legs broken by fall of slate at face of room while taking the slate down.
	29	J. E. West,	American,	Loader,	42	M.	Ocean No. 5,	Allegheny,	Leg injured by car on entry.
Dec.	24	Anton Terfine,	Granish,	Driver,	20	S.	Yough Slope,	Westmoreland,	Back bruised and arm injured by fall of roof on entry.
	29	William Mathews,	American,	Driver,	24	M.	Ocean No. 5,	Allegheny,	Cheek-bone broken and face cut by kick of mule.

CONDITION OF MINES

PITTSBURGH COAL COMPANY

Banning Nos. 1, 2 and 3.—Ventilation and drainage good, except in parts of No. 3, where the ventilation is rather weak. Permissible explosives used exclusively.

Euclid.—Ventilation very good. Drainage good. Permissible explosives used in parts of mine.

Eureka.—Ventilation and drainage good.

Forest Hill.—Ventilation reasonably good. Drainage good.

Ocean No. 1.—Part of mine is operated with Shaner mine. Condition reasonably good.

Ocean No. 2.—Ventilation in some parts of the mine good; in other parts fair. Drainage good.

Ocean No. 5.—Ventilation reasonably good. Drainage good.

Shaner.—Ventilation and drainage reasonably good.

Waverly.—Ventilation and drainage good.

West Newton.—Ventilation reasonably good. Drainage good.

Wick Haven.—Ventilation and drainage good. Permissible explosives used exclusively.

Yough Slope.—Ventilation in some parts of the mine good; in other parts fair. Drainage reasonably good.

PENN GAS COAL COMPANY

Penn Gas No. 3.—Ventilation reasonably good. Drainage good. Permissible explosives used exclusively.

MONONGAHELA RIVER CONSOLIDATED COAL AND COKE COMPANY

Yough No. 2.—Ventilation in some parts of the mine good; in other parts fair. Drainage good.

BANNING-CONNELLSVILLE COKE COMPANY

Wineland Nos. 1, 2 and 3.—In good condition.

E. R. WEISE COAL COMPANY

Guffey.—In good condition.

ECHARD COAL AND COKE COMPANY

Murphy.—In fairly good condition.

LAKE SHORE GAS COAL COMPANY

Dravo.—Idle latter part of year. Not inspected.

Painter.—In reasonably good condition on last inspection.

R. MARIETTA COAL COMPANY

Dilworth.—Abandoned August 1.

BOWMAN BROTHERS COMPANY

Bowman.—In good condition.

IMPROVEMENTS

PITTSBURGH COAL COMPANY

Banning No. 1.—Built 44 brick stoppings. Main entrance to mine arched with concrete a distance of 36 feet. Installed one 8 by 10 by 18 Connellsville triplex double acting pump and one 2 by 2½ centrifugal pump. Rebuilt stable that had been destroyed by fire.

Banning No. 2.—Built 4 brick overcasts and 50 brick stoppings. Extended motor road 5,500 feet. Erected a two-story brick supply house, 20 by 40 feet, also 10 miners' houses, double blocks.

Banning No. 3.—Built 70 stoppings, 2 overcasts, 25 door frames and one pump house, all of brick. Made 82 shelter holes. Extended motor road 2,150 feet. Installed one Robinson coal crusher. Built a retaining wall 207 feet long and 6 feet high. Erected 35 miners' houses, double blocks.

Euclid.—Built 17 brick stoppings.

Eureka.—Built 10 stoppings, 3 overcasts, a First Aid room and 1 supply house, all of brick.

Extended motor road 1,350 feet. Installed one 13-ton electric motor.

Forest Hill.—Built 70 stoppings, 1 overcast, 1 pump house and 5 door frames, all of brick. Extended motor road 2,200 feet.

Ocean No. 1.—Built 35 brick stoppings.

Ocean No. 2.—Built 131 stoppings and 8 overcasts of brick. Extended motor road 4,800 feet.

Installed one 8 by 10 Gould triplex plunger pump, also a chain haul on tipple for handling loaded cars, driven by a 15 H. P. Westinghouse motor.

Ocean No. 5.—Built 109 stoppings, 2 overcasts, 6 pump houses and 1 supply house, all of brick. Extended motor road 1,000 feet. Installed one 10 H. P. Deming pump.

Outside: Erected brick lamp house, 16 by 18 feet, and 1 boiler house, 7 by 8 feet, for steam heater.

Shaner.—Built 50 stoppings, 4 overcasts and 1 pump house, all of brick. Extended motor road 6,000 feet. Installed one 15-ton Jeffrey electric motor.

Waverly.—Built 32 stoppings, 3 overcasts, 1 pump house and 1 supply house, all of brick. Extended motor road 600 feet. Laid 1,100 feet of 4-inch wooden discharge pipe, replacing 3-inch iron pipe. Erected 10 miners' houses, double blocks.

West Newton.—Built 20 stoppings and 1 overcast of brick. Installed one 2 by 2½ centrifugal pump, 10 H. P.

Wick Haven.—Built 89 stoppings and 4 overcasts of brick. Extended motor road 1,600 feet.

Yough Slope.—Built 18 stoppings and one overcast of brick

PENN GAS COAL COMPANY

Penn Gas No. 3.—Built 12 stoppings and 6 overcasts of brick. Installed 1 Goodman short wall mining machine.

MONONGAHELA RIVER CONSOLIDATED COAL AND COKE COMPANY

Yough No. 2.—Built 141 stoppings, 1 overcast and 1 pump house of brick. Made 55 shelter holes. Installed one 5 by 6 Deming pump.

BANNING-CONNELLSVILLE COKE COMPANY

Wineland Nos. 1, 2 and 3.—Installed 1 electric coke drawer, 1 pump and 1 generator. Erected store building.

MINE FOREMEN'S, ASSISTANT MINE FOREMEN'S AND FIRE BOSSES' EXAMINATIONS

The annual examination of applicants for certificates of qualification as mine foremen, assistant mine foremen and fire bosses was held in McKeesport, May 6, 7 and 8. The Board of Examiners was composed of Charles P. Bryne, Inspector; William J. McGregor, Superintendent, and Robert Wood, Miner.

There were 39 applicants for certificates of qualification as mine foremen and assistant mine foremen and 42 applicants for certificates of qualification as fire bosses. The following persons passed a satisfactory examination and were granted certificates:

MINE FOREMEN

First Grade

Samuel T. McMillan, Robbins; Thomas McCartney, Smithton; Patrick F. Nairn, West Newton; Constantine C. McGregor, Crafton; Charles M. Thrasher, Archie Rowley, Isaac B. Santmyer, Star Junction; Oscar Steckman, Fitz Henry; David McKay, Whitsett; James Langan, Scott Haven.

Second Grade

Ebenezer Evans, Scott Haven; Edward M. Muldowney, Whitsett; Walter W. Curran, Banning; Edward E. Snyder, Van Meter.

ASSISTANT MINE FOREMEN

Ebenezer Evans, Scott Haven; Edward M. Muldowney, Herbert Devey, Whitsett; Walter W. Curran, Banning; William B. Phillips, Sutersville; Archibald McIntyre, Fitz Henry; Joseph P. Rupert, Frank; William W. Bregar, George M. Sterner, West Newton; Hugo Drescher, Coulter; George Dyson, Lowber; Henry L. Geruschat, Elizabeth; Percy Snyder, Van Meter.

FIRE BOSSES

Charles E. Hall, Henry Mull, John Howison, Albert R. McMillan, William Nairn, Joseph Kite, West Newton; Arthur Aultman, Yohoghany; Edward Guy, Stanford, William Aspey, Jacobs Creek; George A. Myers, George E. Aspinwall, Clinton Beard, Robert Baughman, Star Junction; David Flagle, Van Meter; Thomas A. Williams, Belle Vernon; George D. Mills, Connellsville; Raymond Sisley, Perryopolis; Ephriam Sellers, Frank M. Markey, Banning; Adam P. Blum, Smithton; Walter Nicholls, Buena Vista; John Robertson, Coulter; Benjamin F. Streets, Sutersville.

TWENTY-THIRD DISTRICT

FAYETTE AND GREENE COUNTIES

Masontown, Pa., February 14, 1914.

Hon. James E. Roderick, Chief of Department of Mines:

Sir: In compliance with the Bituminous Mine Law, approved June 9, 1911, I herewith transmit my annual report of the Twenty-third Bituminous District for the year ending December 31, 1913.

The report contains the usual statistical tables, a brief description of the condition of the mines and improvements, and a report of the result of the examination of applicants for certificates of qualification as mine foremen, assistant mine foremen and fire bosses.

Respectfully submitted,

EDWARD E. GIROD,
Inspector.

SUMMARY OF STATISTICS

Number of mines,	42
Number of mines in operation,	40
Number of tons of coal shipped to market,	607,166
Number of tons used at mines for steam and heat,	153,116
Number of tons sold to local trade and used by employes,	46,809
Number of tons used in the manufacture of coke,	6,100,404
Number of tons of coal produced,	6,907,495
Number of tons of coke produced,	4,038,486
Number of coke ovens,	7,066
Number of coke ovens in operation,	6,295
Number of tons of coal produced by pick mining,	4,599,984
Number of tons produced by compressed air machines,	1,295,571
Number of tons produced by electrical machines,	1,011,940
Number of persons employed inside of mines,	4,238
Number of persons employed outside, including coke workers,	2,679
Number of persons employed at manufacture of coke,	1,651
Number of fatal accidents inside of mines,	14
Number of fatal accidents outside,	5
Number of non-fatal accidents inside of mines,	18
Number of non-fatal accidents outside,	8
Number of tons of coal produced per fatal accident inside,	493,393
Number of tons produced per fatal accident outside,	1,381,499
Number of tons produced per fatal accident inside and outside,	363,552
Number of persons employed per fatal accident inside,	303
Number of persons employed per fatal accident outside,	536
Number of persons employed per fatal accident inside and outside,	364
Number of persons employed per non-fatal accident inside,	235
Number of persons employed per non-fatal accident outside,	335
Number of persons employed per non-fatal accident inside and outside,	266
Number of wives made widows,	10
Number of children made orphans,	21
Number of steam locomotives used inside of mines,	....
Number of steam locomotives used outside,	5
Number of compressed air locomotives used inside,	18
Number of compressed air locomotives used outside,	....
Number of electric motors used inside,	47
Number of electric motors used outside,	1
Number of gasoline locomotives used inside,	....
Number of fans in use,	36
Number of furnaces in use,	3
Number of gaseous mines in operation,	16
Number of non-gaseous mines in operation,	24
Number of new mines opened,	1
Number of old mines abandoned,	2

TABLE A

PRODUCTION OF COAL

Names of Operators	Tons
H. C. Frick Coke Company,	4,459,781
Consolidated Connellsville Coke Company,	743,336
Bessemer Coke Company,	358,287
Republic Iron and Steel Company,	240,607
Sunshine Coal and Coke Company,	209,558
Puritan Coke Company,	171,676
Fayette Coke Company,	161,660
McKeefrey Coal Company,	101,260
W. J. Parshall,	74,272
South Fayette Coke Company,	70,922
Gilmore Coke Company,	70,100
James H. Hoover,	50,000
Plumer Coke Company,	50,000
Poland Coal Company,	49,544
Hope Coke Company,	49,327
Reilley and Callaghan,	33,200
James Byrne and Company,	13,965
Total,	6,907,495

Production by Counties

Fayette,	6,857,951
Greene,	49,544
Total,	6,907,495

TABLE B.—Fatal and non-fatal accidents inside and outside of mines; number of tons of coal produced per accident; number of persons employed; number employed per accident

Names of Operators	Fatal Accidents			Non-Fatal Accidents			Tons of coal produced per fatal accident inside	Tons of coal produced per non-fatal accident inside	Number of employes inside	Number of employes outside	Total number of employes	Number of employes inside per fatal accident	Number of employes outside per fatal accident	Number of employes inside per non-fatal accident	Number of employes outside per non-fatal accident
	Inside	Outside	Total	Inside	Outside	Total									
H. C. Frick Coke Co.,	10	3	13	5	......	5	445,978	891,956	2,443	1,422	3,865	244	474	489	....
Consolidated Connellsville Coke Co.,	......	......	......	10	3	13	....	74,834	473	399	872	....	....	47	133
Bessemer Coke Co.,	......	......	......	......	5	5	....	....	329	161	490	....	....	....	32
Republic Iron and Steel Co.,	1	......	1	3	......	3	240,607	80,202	125	115	240	125	....	42	....
Sunshine Coal and Coke Co.,	2	......	2	......	......	......	104,779	....	159	104	263	80	....	....	....
South Fayette Coke Co.,	......	1	1	......	......	......	....	....	45	28	73	....	28	....	....
Plumer Coke Co.,	1	......	1	......	......	......	50,000	....	40	36	76	40	....	....	....
Poland Coal Co.,	......	1	1	......	......	......	....	....	80	24	104	....	24	....	....
Miscellaneous Companies,	......	......	......	......	......	......	....	....	544	390	934	....	....	....	....
Totals and averages for district,	14	5	19	18	8	26	493,393	383,750	4,238	2,679	6,917	303	536	235	335

TABLE C.—Classification of Fatal Accidents Inside and Outside of Mines

	Months													
	January	February	March	April	May	June	July	August	September	October	November	December	Totals	Percentages
Causes of Accidents Inside														
Falls of slate, ...	1	....	....	....	2	....	1	2	....	....	....	1	7	50.00
Falls of roof, ...	....	....	....	....	....	....	....	....	....	....	1	....	1	7.14
Mine cars, ...	....	....	....	....	....	....	....	2	....	....	1	2	5	35.72
Electricity, ...	....	....	....	....	....	1	....	....	....	....	....	....	1	7.14
Totals, ...	1	....	....	....	2	1	1	4	....	....	2	3	14	100.00
Causes of Accidents Outside														
Cars, ...	1	....	....	....	....	....	1	1	....	1	....	....	4	80.00
Injured by wagon, ...	....	....	....	....	1	....	....	....	....	....	....	....	1	20.00
Totals, ...	1	....	....	....	1	....	1	1	....	1	....	....	5	100.00
Grand totals inside and outside, ...	2	....	....	....	3	1	2	5	....	1	2	3	19	......

TABLE D.—Classification of Non-Fatal Accidents Inside and Outside of Mines

	Months													
	January	February	March	April	May	June	July	August	September	October	November	December	Totals	Percentages
Causes of Accidents Inside														
Falls of slate, ...	....	....	1	....	....	1	....	2	....	1	....	....	5	27.78
Mine cars, ...	2	1	....	1	....	2	2	....	....	1	1	....	10	55.55
Blasts, premature and otherwise, ...	....	....	....	....	....	....	....	....	....	....	1	....	1	5.56
Mules, ...	....	1	1	....	....	....	....	....	....	....	....	....	2	11.11
Totals, ...	2	2	2	1	....	3	2	2	....	2	2	....	18	100.00
Causes of Accidents Outside														
Cars, ...	....	....	....	....	....	....	....	1	....	....	1	....	2	25.00
Machinery, ...	....	....	....	....	....	....	....	....	....	....	1	....	1	12.50
By falling, ...	....	2	....	....	....	....	....	....	1	1	....	....	4	50.00
Burned by hot ashes,..	....	....	....	....	....	....	1	....	....	....	....	....	1	12.50
Totals, ...	....	2	....	....	....	....	1	1	1	1	2	....	8	100.00
Grand totals inside and outside, ...	2	4	2	1	....	3	3	3	1	3	4	....	26	......

TABLE E.—Occupations of Persons Killed or Fatally Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
Inside													
Fire bosses,	....	....	....	....	....	....	....	....	....	....	1	....	1
Miners,	....	....	....	....	1	....	1	1	....	....	....	1	4
Brakemen,	....	....	....	....	....	....	....	....	....	....	....	1	1
Laborers,	1	....	....	....	....	....	....	....	....	....	....	....	1
Drivers and runners,	....	....	....	....	....	....	....	3	....	....	....	1	4
Company men,	....	....	....	....	....	....	....	....	....	....	1	....	1
Electricians,	....	....	....	....	....	1	....	....	....	....	....	....	1
Timbermen,	....	....	....	....	1	....	....	....	....	....	....	....	1
Totals,	1	....	....	....	2	1	1	4	....	....	2	3	14
Outside													
Motormen,	....	....	....	....	....	....	....	1	....	....	....	....	1
Coke employes,	1	....	....	....	....	....	1	....	....	1	....	....	3
Laborers,	....	....	....	....	1	....	....	....	....	....	....	....	1
Totals,	1	....	....	....	1	....	1	1	....	1	....	....	5
Grand totals inside and outside,	2	....	....	....	3	1	2	5	....	1	2	3	19

TABLE F.—Occupations of Persons Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
Inside													
Fire bosses,	....	....	....	....	....	....	....	1	....	....	....	....	1
Miners,	1	....	1	....	....	1	....	1	....	1	1	....	6
Drivers and runners,	....	2	1	....	....	1	1	....	....	....	1	....	6
Brakemen,	1	....	....	....	....	....	....	....	....	....	....	....	1
Laborers,	....	....	....	....	....	1	1	....	....	1	....	....	3
Trip-riders,	....	....	....	1	....	....	....	....	....	....	....	....	1
Totals,	2	2	2	1	....	3	2	2	....	2	2	....	18
Outside													
Machinists,	....	1	....	....	....	....	....	....	....	....	....	....	1
Carpenters,	....	1	....	....	....	....	....	....	....	....	....	....	1
Car shifters,	....	....	....	....	....	....	....	1	....	1	....	....	2
Coke employes,	....	....	....	....	....	....	....	....	1	....	....	....	1
Chargers,	....	....	....	....	....	....	1	....	....	....	1	....	2
Pumpers,	....	....	....	....	....	....	....	....	....	....	1	....	1
Totals,	....	2	....	....	....	....	1	1	1	1	2	....	8
Grand totals inside and outside,	2	4	2	1	....	3	3	3	1	3	4	....	26

TABLE G.—Nationality of Persons Killed or Fatally Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
American,	....	....	....	....	....	....	....	3	....	1	....	....	4
Polish,	....	....	....	....	....	....	1	1	....	....	....	....	2
Italian,	1	....	....	....	2	1	....	....	....	....	....	....	4
Slavonian,	1	....	....	....	1	....	1	....	....	....	....	....	3
Austrian,	....	....	....	....	....	....	....	....	....	....	....	1	1
Horwat,	....	....	....	....	....	....	....	1	....	....	1	2	4
French,	....	....	....	....	....	....	....	....	....	....	1	....	1
Totals,	2	....	....	....	3	1	2	5	....	1	2	3	19

TABLE H.—Nationality of Persons Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
American,	....	1	....	....	....	1	1	1	....	....	2	....	6
Polish,	....	....	....	....	....	1	....	....	....	....	1	....	2
Magyar,	....	....	....	....	....	....	....	....	....	1	....	....	1
Italian,	....	....	....	....	....	....	1	1	....	1	....	....	3
Slavonian,	1	1	1	....	....	1	....	....	....	1	....	....	5
Austrian,	1	....	....	....	....	....	1	....	1	....	....	....	3
Russian,	....	1	1	....	....	....	....	....	....	....	....	....	2
Horwat,	....	1	....	1	....	....	....	1	....	....	1	....	4
Totals,	2	4	2	1	....	3	3	3	1	3	4	....	26

TABLE I.—Operators and mines, kind of openings, type and size of fans, size of furnaces, volume of air produced by fan or furnace per minute, number of splits of air cur rents and number of persons employed inside

Names of Operators and Mines	Kind of opening	Gaseous or non-gaseous	Method of ventilation	Diameter of fan in feet and inches	Width of blades in feet and inches	Depth of blades in feet and inches	Number of revolutions per minute	Water gauge developed—in inches	Name of fan	Power used	Area of furnace bars in square feet	Number of splits of air currents	Number of cubic feet of air per minute entering the mine at inlet	Total number of cubic feet of air per minute circulating in all the splits	Number of cubic feet of air per minute passing out at outlet	Number of persons employed inside
H. C. Frick Coke Co.																
Shoaf No. 1,	Drift,	Non-gas.,	Fan,	16.0	7.0	4.0	118	2.4	Robinson,	Electricity,	..	4	108,400	62,630	110,000	284
Shoaf No. 2,	Drift,	Non-gas.,	2 Fans,	16.0	4.0	3.6	82	1.4	Guibal,	Electricity,		5	98,800	62.916	100,700	
				16.0	4.0	3.6	84	1.4	Guibal,	Electricity,						
Leckrone No. 1,	Drift, Slope,	Non-gas.,	Fan,	13.6	5.0	3.6	120	1.4	Capell,	Steam,	..	4	90,000	70,700	78,000	239
Leckrone No. 2,	Drift,	Non-gas.,	Fan,	7.0	2.0	2.0	34	0.4	Capell,	Electricity,	..	1	15,200	6,000	10,000	
Leckrone No. 3,	Drift,	Non-gas.,	Furnace,	......	......	......	......	.....	....	Furnace,	20	1	11,800	10,000	6,100	
Buffington,	Shaft,	Gaseous,	Fan,	16.0	10.0	4.6	125	1.7	Capell,	Steam,	..	8	159,000	82,350	160,000	260
Edenborn,	Shaft,	Gaseous,	Fan,	26.0	7.0	7.0	74	1.7	Clifford,	Steam,	..	12	197,000	138,585	199,300	237
Ronco,	Shaft,	Gaseous,	Fan,	25.0	9.0	6.6	80	2.6	Robinson,	Steam,	..	10	178,742	131,137	182,117	306
Footedale,	Drift, Slope,	Gaseous,	Fan,	13.6	7.0	3.6	145	2.0	Capell,	Steam,	..	6	100,750	71,700	97,500	212
York Run,	Drift, Slope,	Gaseous,	Fan,	20.0	6.4	5.0	80	1.5	Guibal,	Steam,	..	7	107,800	80,050	110,000	232
Collier,	Shaft,	Gaseous,	Fan,	20.0	8.0	5.0	90	1.5	Clifford,	Steam,	..	7	126,400	104,615	128,860	234
Lambert,	Shaft,	Gaseous,	Fan,	25.0	7.0	7.0	95	2.7	Capell,	Steam,	..	10	192,150	158,435	198,570	236
Gates No. 1,	Shaft,	Gaseous,	Fan,	12.0	5.0	2.5	142	1.8	Capell,	Steam,	..	5	80,400	42,780	83,260	203
Gates No. 2,	Shaft,	Gaseous,	Fan,	12.0	5.0	2.5	150	2.2	Capell,	Steam,	..	6	93,000	67,390	95,000	

Consolidated Connellsville Coke Co.																
Donald No. 1, ...	Drift, ...	Non-gas., .	Fan, ...	20.0	8.0	8.0	90	2.5	Robinson,.	Steam, ...	..	3	85,000	59,270	60,000	211
Donald No. 2, ...	Drift, ...	Non-gas., .	Fan, ...	6.0	4.0	2.6	130	1.0	Robinson,.	Electricity, .	..	1	48,800	15,000	12,000	
Donald No. 3, ...	Slope, ...	Gaseous, ..	Fan, ...	12.0	4.0	4.0	84	0.8	Robinson,.	Steam, ...	..	3	49,800	33,100	51,380	89
Donald No. 4, ...	Shaft, ...	Gaseous, ..	Fan, ...	18.0	8.0	5.0	100	1.7	Capell, ..	Steam, ...	..	4	126,000	63,500	128,100	173
Bessemer Coke Co.																
Griffin No. 1, ...	Drift, ...	Gaseous, ..	Fan, ...	18.0	5.0	5.0	60	0.7	Cole, ...	Electricity, .	..	2	40,000	18,950	30,000	213
Mack, ...	Drift, ...	Non-gas., .	Fan, ...	10.0	5.0	4.0	60	0.7	Robinson,.	Steam, ...	..	1	40,000	8,500	12,008	
Bise, ...	Drift, ...	Non-gas., .	Fan, ...	12.0	5.6	3.2	40	0.5	Guibal, ..	Electricity, .	..	1	14,280	7,000	11,200	
Griffin No. 2, ...	Slope, ...	Gaseous, ..	Fan, ...	10.0	5.0	4.4	102	0.8	Robinson,.	Steam, ...	..	2	51,500	20,000	53,000	116
Republic Iron and Steel Co.																
Martin, ...	Drift, ...	Non-gas., .	Fan, ...	7.0	1.6	3.0	400	1.0	Stine	Electricity, .	..	2	64,800	22,500	66,000	125
Sunshine Coal and Coke Co.																
Teresa No. 1, ...	Drift, ...	Non-gas., .	Fan, ...	13.0	3.6	3.6	35	0.2	Brazil, ...	Steam, ...	..	1	30,000	16,800	12,000	17
Teresa No. 2, ...	Drift, ...	Non-gas., .	Fan, ...	6.0	2.2	2.2	440	0.5	Buffalo Forge.	Electricity, .	..	1	24,000	8,240	11,000	60
Joseph No. 9, ...	Drift, ...	Non-gas., .	Fan, ...	6.0	3.0	3.0	155	0.4	Sirocco, .	Electricity, .	..	1	38,000	11,900	15,980	67
Francis, ...	Drift, ...	Non-gas., .	Natural, ..	......	......	......	......	......	....	Natural, ...	..	1	5,000	3,800	3,000	15
Puritan Coke Co.																
Puritan, ...	Slope, ...	Gaseous, ..	Fan, ...	12.0	6.0	3.0	145	1.1	Robinson,.	Steam, ...	..	4	78,000	60,000	79,000	124
Fayette Coke Co.																
Shamrock, ...	Slope, ...	Non-gas., .	Fan, ...	9.0	8.0	4.0	170	0.8	Capell, ..	Steam, ...	..	3	56,000	39,600	46,200	130
McKeefrey Coal Co.																
McKeefrey, ...	Drift, ...	Non-gas., .	Fan, ...	12.0	4.0	3.0	68	0.6	Cole, ...	Electricity, .	..	3	57,800	23,650	39,000	80
W. J. Parshall																
Old Home, ...	Slope, ...	Gaseous, ..	Fan, ...	12.6	6.0	4.0	80	0.3	Clifford, .	Steam, ...	..	1	33,280	13,800	35,000	70
South Fayette Coke Co.																
Fretts, ...	Slope, ...	Non-gas., .	Fan, ...	10.0	4.0	3.6	75	0.2	Brazil, ...	Steam, ...	..	1	28,200	12,800	26,000	45
Gilmore Coke Co.																
Gilmore No. 1, ...	Drift, ...	Non-gas., .	Fan, ...	6.0	1.0	3.0	400	0.2	Stine, ...	Electricity, .	..	1	40,000	13,980	42,000	51
Gilmore No. 2, ...	Drift, ...	Non-gas., .	Furnace, ..	......	......	......	......	......	....	....	9	1	8,980	5,600	10,000	
James H. Hoover																
Hoover, ...	Slope, ...	Gaseous, ..	Fan, ...	14.0	7.0	3.5	65	.2	Capell, ..	Steam, ...	..	1	42,400	9,520	44,500	32
Plumer Coke Co.																
Plumer, ...	Slope, ...	Non-gas., .	Fan, ...	12.0	3.6	4.0	60	.7	C. M. and Car Co.	Electricity, .	..	1	26,600	9,000	28,000	40
Poland Coal Co.																
Poland,†	Drift, ...	Non-gas., .	Fan, ...	14.4	5.4	3.0	125	.5	Clifford, .	Electricity, .	..	1	105,000	15,000	108,000	80
Hope Coke Co.																
Hope.	Slope, ...	Non-gas., .	Fan.	10.0	3.4	3.0	50	.3	Brazil, ..	Steam, ...	..	1	19,600	10,400	21,000	24

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†New mine.

TABLE I.—Continued

Names of Operators and Mines	Kind of opening	Gaseous or non-gaseous	Method of ventilation	Diameter of fan in feet and inches	Width of blades in feet and inches	Depth of blades in feet and inches	Number of revolutions per minute	Water gauge developed—in inches	Name of fan	Power used	Area of furnace bars in square feet	Number of splits of air currents	Number of cubic feet of air per minute entering the mine at inlet	Total number of cubic feet of air per minute circulating in all the splits	Number of cubic feet of air per minute passing out at outlet	Number of persons employed inside
Reilley and Callaghan Nellie, ...	Drift, ...	Non-gas., .	Furnace, ..	......	......	......	......	......	....	....	25	1	7,000	5,500	8,000	23
James Byrne and Co. Finley, ...	Drift, ...	Non-gas., .	Natural, ..	......	......	......	......	......	....	....	..	1	5,620	4,110	6,000	10

Note.—Where more air is recorded passing in at inlet than passing out at outlet, the mines have shallow cover and numerous surface breaks, and are also ventilated by force fans. While the air travels over gobs a portion of it escapes through the surface breaks.

Where more air is recorded passing out at outlet than passing in at inlet, the surface is not broken and the full quantity travels the entire route, and, in the winter season, is expanded by coming in contact with the surfaces in the mine that are warmer than the outer air. This will be true with exhaust or force fans or furnace.

Where more air is recorded passing in at inlet than passing out at outlet, and a furnace or exhaust fan is used, it is caused by shallow broken surface that permits the natural forces to operate against the effects of the exhaust fan or furnace.

TABLE J.—Mines using coal cutting machines, power used, geological and local names of seams, thickest and thinnest seams where machines are used, and the approximate number of tons produced by machines

Names of Operators	Names of Mines	Kind of opening	Gaseous or non-gaseous	Number of mining machines used	Power used by machines	Geological and local names of seams	Average thickness in inches	Height of Seam in Inches		Approximate number of tons produced by machines
								Thickest	Thinnest	
H. C. Frick Coke Co.,	Shoaf No. 1,	Drift,	Non-gas.,	7	Electricity,	Pittsburgh,	88	100	76	161,759
	Leckrone No. 1,	Drift, Slope,	Non-gas.,	8	Electricity,		90	96	84	314,825
	Buffington,	Shaft,	Gaseous,	6	Compressed air,		100	112	88	148,409
	Edenborn,	Shaft,	Gaseous,	8	Compressed air,		90	96	84	212,756
	Ronco,	Shaft,	Gaseous,	10	Compressed air,		95	98	92	222,721
	Footdale,	Drift, Slope,	Gaseous,	7 1	Electricity, Compressed air,		96	108	84	166,805 4,390
	York Run,	Drift, Slope,	Gaseous,	8	Electricity,		75	90	66	274,000
	Collier,	Shaft,	Gaseous,	5	Compressed air,		87	104	72	128,867
	Lambert,	Shaft,	Gaseous,	6	Compressed air,		98	108	87	157,808
	Gates Nos. 1 and 2,	Shaft,	Gaseous,	7	Compressed air,		98	108	87	174,781
Totals,				78						1,966,616
Consolidated Connellsville Coke Co.	Donald No. 2,	Drift,	Non-gas.,	1	Electricity,	Pittsburgh,	90	101	76	14,116
	Donald No. 3,	Slope,	Gaseous,	2	Compressed air,		90	104	76	15,692
	Donald No. 4,	Shaft,	Gaseous,	10	Compressed air,		92	108	76	185,652
Totals,				13						215,460
Republic Iron and Steel Co.,	Martin,	Drift,	Non-gas.,	1	Electricity,	Pittsburgh,	90	132	48	891
Sunshine Coal and Coke Co.,	Joseph No. 9,	Drift,	Non-gas.,	2	Electricity,	Sewickley,	60	72	48	30,000
W. J. Parshall,	Old Home,	Slope,	Gaseous,	4	Compressed air,	Pittsburgh,	100	104	96	45,000
Poland Coal Co.,	Poland,	Drift,	Non-gas.,	2	Electricity,	Pittsburgh,	72	108	36	49,544
Grand totals,				95						2,307,511

TABLE 1.—Operators, Location of Mines, Railroads, etc.

Names of Operators and Mines	County	Name of General Superintendent	Post Office	Name of Superintendent	Post Office	Railroad to Mine
H. C. Frick Coke Co.						
Shoaf Nos. 1 and 2,	Fayette,	W. H. Clingerman,	Scottdale,	Frank E. Emory,	Smithfield R. F. D. No. 7.	Penna. and B. and O.
Leckrone Nos. 1, 2 and 3,				John A. Ramsay,	Leckrone,	Penna., B. and O. and Monongahela
Buffington,				James Hart,	New Salem,	Monongahela
Edenborn,				John F. McCracken,	Edenborn,	Monongahela
Ronco,				Charles K. McCaffrey	Ronco,	Monongahela
Footedale,				Robert S. Skemp,	New Salem,	Monongahela
York Run,				E. B. Beerbauer,	Smithfield, R. F. D. No. 7.	Penna. and B. and O.
Collier,				C. H. Pittman,	Smithfield, R. F. D. No. 7.	Penna. and B. and O.
Lambert,				H. N. Boyd,	Lamberton,	Monongahela
Gates Nos. 1 and 2,				H. N. Boyd,	Adah,	Monongahela
Palmer,*				H. N. Boyd,	Adah,	Monongahela
Ralph,*				H. N. Boyd,	New Salem, R. F. D. No. 18.	Monongahela
Consolidated Connellsville Coke Co.						
Donald Nos. 1, 2 and 3,	Fayette,	George Whyel,	Uniontown,	A. J. Foy,	Grays Landing,	Monongahela
Donald No. 4,				Charles J. Maher,	Mount Sterling,	
Bessemer Coke Co.						
Griffin No. 1,	Fayette,	W. L. Affelder,	Pittsburgh,	D. R. Depriest,	Masontown,	Monongahela
Mack,						
Bise,						
Griffin No. 2,	Fayette,	W. L. Affelder,	Pittsburgh,	Arthur N. Young,	Masontown,	Monongahela
Republic Iron and Steel Co.						
Martin,	Fayette,	George W. Gebres,	Republic,	George E. Davis,	Martin,	Monongahela
Sunshine Coal and Coke Co.						
Teresa Nos. 1 and 2,	Fayette,	J. B. Topham,	Uniontown,	Thomas L. Wilkinson,	Masontown, R. F. D. No. 15.	Monongahela
Joseph No. 9,						
Francis,						
Puritan Coke Co.						
Puritan,	Fayette,	Francis R. Crow,	McClellandtown,	Francis R. Crow,	McClellandtown,	Monongahela

*Abandoned.

Fayette Coke Co. Shamrock,	Fayette,	Charles E. Lenhart,	New Salem,	George H. Reynolds,	New Salem,	Monongahela
McKeefrey Coal Co. McKeefrey,	Fayette,	W. D. McKeefrey,	Leetonia, Ohio,	James Henderson,	Martin,	Monongahela
W. J. Parshall Old Home,	Fayette,	W. J. Parshall,	Uniontown,	Luke Shaw,	McClellandtown,	Monongahela
South Fayette Coke Co. Fretts,	Fayette,	J. W. Abraham,	Uniontown,	J. S. Conners,	Messmore,	Pennsylvania
Gilmore Coke Co. Gilmore Nos. 1 and 2,	Fayette,	Guy B. Gilmore,	Uniontown,	Ewing B. Swaney,	Smithfield, R. F. D. No. 7.	B. and O.
James H. Hoover Hoover,	Fayette,	James H. Hoover,	McClellandtown, R. F. D. No. 17.	James H. Hoover,	McClellandtown, R. F. D. No. 17.	Monongahela
Plumer Coke Co. Plumer,	Fayette,	Guy B. Gilmore,	Uniontown,	Edward Eberly,	McClellandtown,	Monongahela
Poland Coal Co. Poland,†	Greene,	R. C. Crawford,	Pittsburgh,	J. M. Crawford,	Point Marion,	Monongahela
Hope Coal Co. Hope,	Fayette,	J. E. Hustead,	Uniontown,	W. B. Hustead,	Uniontown,	B. and O.
Reilley and Callaghan Nellie,	Fayette,	W. J. Reilley,	Smithfield, R. F. D. No. 7.	W. J. Reilley,	Smithfield, R. F. D. No. 7.	B. and O.
James Byrne and Co. Finley,	Fayette,	James Byrne,	Everson,	John Pollick,	New Salem,	Monongahela

†New mine.

TABLE E.—Occupations of Persons Killed or Fatally Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
Inside													
Fire bosses,	....	....	....	....	....	....	....	....	....	....	1	....	1
Miners,	....	....	....	....	1	....	1	1	....	....	....	1	4
Brakemen,	....	....	....	....	....	....	....	....	....	....	....	1	1
Laborers,	1	....	....	....	....	....	....	....	....	....	....	....	1
Drivers and runners,	....	....	....	....	....	....	....	3	....	....	....	1	4
Company men,	....	....	....	....	....	....	....	....	....	....	1	....	1
Electricians,	....	....	....	....	....	1	....	....	....	....	....	....	1
Timbermen,	....	....	....	....	1	....	....	....	....	....	....	....	1
Totals,	1	....	....	....	2	1	1	4	....	....	2	3	14
Outside													
Motormen,	....	....	....	....	....	....	....	1	....	....	....	....	1
Coke employes,	1	....	....	....	....	....	1	....	....	1	....	....	3
Laborers,	....	....	....	....	1	....	....	....	....	....	....	....	1
Totals,	1	....	....	....	1	....	1	1	....	1	....	....	5
Grand totals inside and outside,	2	....	....	....	3	1	2	5	....	1	2	3	19

TABLE F.—Occupations of Persons Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
Inside													
Fire bosses,	....	....	....	....	....	....	....	1	....	....	....	....	1
Miners,	1	....	1	....	....	1	....	1	....	1	1	....	6
Drivers and runners,	....	2	1	....	....	1	1	....	....	....	1	....	6
Brakemen,	1	....	....	....	....	....	....	....	....	....	....	....	1
Laborers,	....	....	....	....	....	1	1	....	....	1	....	....	3
Trip-riders,	....	....	....	1	....	....	....	....	....	....	....	....	1
Totals,	2	2	2	1	....	3	2	2	....	2	2	....	18
Outside													
Machinists,	....	1	....	....	....	....	....	....	....	....	....	....	1
Carpenters,	....	1	....	....	....	....	....	....	....	....	....	....	1
Car shifters,	....	....	....	....	....	....	....	1	....	1	....	....	2
Coke employes,	....	....	....	....	....	....	....	....	1	....	....	....	1
Chargers,	....	....	....	....	....	....	1	....	....	....	1	....	2
Pumpers,	....	....	....	....	....	....	....	....	....	....	1	....	1
Totals,	....	2	....	....	....	....	1	1	1	1	2	....	8
Grand totals inside and outside,	2	4	2	1	....	3	3	3	1	3	4	....	26

TABLE G.—Nationality of Persons Killed or Fatally Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
American,	....	....	....	....	....	....	....	3	....	1	....	....	4
Polish,	....	....	....	....	....	....	1	1	....	....	....	....	2
Italian,	1	....	....	....	2	1	....	....	....	....	....	....	4
Slavonian,	1	....	....	....	1	....	1	....	....	....	....	....	3
Austrian,	....	....	....	....	....	....	....	....	....	....	....	1	1
Horwat,	....	....	....	....	....	....	....	1	....	....	1	2	4
French,	....	....	....	....	....	....	....	....	....	....	1	....	1
Totals,	2	....	....	....	3	1	2	5	....	1	2	3	19

TABLE H.—Nationality of Persons Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
American,	....	1	....	....	....	1	1	1	....	....	2	....	6
Polish,	....	....	....	....	....	1	....	....	....	....	1	....	2
Magyar,	....	....	....	....	....	....	....	....	....	1	....	....	1
Italian,	....	....	....	....	....	....	1	1	....	1	....	....	3
Slavonian,	1	1	1	....	....	1	....	....	....	1	....	....	5
Austrian,	1	....	....	....	....	....	1	....	1	....	....	....	3
Russian,	....	1	1	....	....	....	....	....	....	....	....	....	2
Horwat,	....	1	....	1	....	....	....	1	....	....	1	....	4
Totals,	2	4	2	1	....	3	3	3	1	3	4	....	28

TABLE I.—Operators and mines, kind of openings, type and size of fans, size of furnaces, volume of air produced by fan or furnace per minute, number of splits of air currents and number of persons employed inside

Names of Operators and Mines	Kind of opening	Gaseous or non-gaseous	Method of ventilation	Diameter of fan in feet and inches	Width of blades in feet and inches	Depth of blades in feet and inches	Number of revolutions per minute	Water gauge developed—in inches	Name of fan	Power used	Area of furnace bars in square feet	Number of splits of air currents	Number of cubic feet of air per minute entering the mine at inlet	Total number of cubic feet of air per minute circulating in all the splits	Number of cubic feet of air per minute passing out at outlet	Number of persons employed inside
H. C. Frick Coke Co.																
Shoaf No. 1, ...	Drift, ...	Non-gas., .	Fan, ...	16.0	7.0	4.0	118	2.4	Robinson, .	Electricity, .	..	4	106,400	62,630	110,000	234
Shoaf No. 2, ...	Drift, ...	Non-gas., .	2 Fans, ..	16.0	4.0	3.6	82	1.4	Guibal, ..	Electricity, .		5	98,800	62.916	100,700	
				16.0	4.0	3.6	84	1.4	Guibal, ..	Electricity, .						
Leckrone No. 1, ...	Drift, .. Slope, ..	Non-gas., .	Fan, ...	13.6	5.0	3.6	120	1.4	Capell, ..	Steam, ...	..	4	90,000	70,700	78,000	239
Leckrone No. 2, ...	Drift, ...	Non-gas., .	Fan, ...	7.0	2.0	2.0	34	0.4	Capell, ..	Electricity, .	..	1	15,200	6,000	10,000	
Leckrone No. 3, ...	Drift, ...	Non-gas., .	Furnace, ..	......	......	......	......	.....	....	Furnace, ...	20	1	11,800	10,000	6,100	
Buffington, ...	Shaft, ...	Gaseous, ..	Fan, ...	16.0	10.0	4.6	125	1.7	Capell, ..	Steam, ...	..	8	159,000	82,350	160,000	260
Edenborn, ...	Shaft, ...	Gaseous, ..	Fan, ...	26.0	7.0	7.0	74	1.7	Clifford, .	Steam, ...	..	12	197,000	138,585	199,300	237
Ronco, ...	Shaft, ...	Gaseous, ..	Fan, ...	25.0	9.0	6.6	80	2.6	Robinson, .	Steam, ...	..	10	178,742	131,137	182,117	306
Footedale, ...	Drift, .. Slope, ..	Gaseous, ..	Fan, ...	13.6	7.0	3.6	145	2.0	Capell, ..	Steam, ...	..	6	100,750	71,700	97,500	212
York Run, ...	Drift, .. Slope, ..	Gaseous, ..	Fan, ...	20.0	6.4	5.0	80	1.5	Guibal, ..	Steam, ...	..	7	107,800	80,050	110,000	232
Collier, ...	Shaft, ...	Gaseous, ..	Fan, ...	20.0	8.0	5.0	90	1.5	Clifford, .	Steam, ...	..	7	126,400	104,615	128,860	234
Lambert, ...	Shaft, ...	Gaseous, ..	Fan, ...	25.0	7.0	7.0	95	3.7	Capell, ..	Steam, ...	..	10	192,150	158,435	198,570	236
Gates No. 1, ...	Shaft, ...	Gaseous, ..	Fan, ...	13.0	5.0	2.5	142	1.8	Capell, ..	Steam, ...	..	5	80,400	42,780	88,260	203
Gates No. 2, ...	Shaft, ...	Gaseous, ..	Fan, ...	13.0	5.0	2.5	150	2.2	Capell, .	Steam, ...	..	6	93,000	67,390	95,000	

Consolidated Connellsville Coke Co.																
Donald No. 1,	Drift,	Non-gas.,	Fan,	20.0	8.0	3.0	90	2.5	Robinson,	Steam,	..	3	85,000	59,270	60,000	211
Donald No. 2,	Drift,	Non-gas.,	Fan,	6.0	4.0	2.6	180	1.0	Robinson,	Electricity,	..	1	48,800	15,000	12,000	
Donald No. 3,	Slope,	Gaseous,	Fan,	12.0	4.0	4.0	84	0.8	Robinson,	Steam,	..	3	49,800	33,100	51,380	89
Donald No. 4,	Shaft,	Gaseous,	Fan,	18.0	8.0	5.0	100	1.7	Capell,	Steam,	..	4	126,000	63,500	128,100	173
Bessemer Coke Co.																
Griffin No. 1,	Drift,	Gaseous,	Fan,	18.0	5.0	5.0	60	0.7	Cole,	Electricity,	..	2	40,000	18,950	30,000	213
Mack,	Drift,	Non-gas.,	Fan,	10.0	5.0	4.0	60	0.7	Robinson,	Steam,	..	1	40,000	8,500	12,000	
Bise,	Drift,	Non-gas.,	Fan,	12.0	5.6	3.2	40	0.5	Guibal,	Electricity,	..	1	14,280	7,000	11,200	
Griffin No. 2,	Slope,	Gaseous,	Fan,	10.0	5.0	4.4	102	0.8	Robinson,	Steam,	..	2	51,500	20,000	53,000	116
Republic Iron and Steel Co.																
Martin,	Drift,	Non-gas.,	Fan,	7.0	1.6	3.0	400	1.0	Stine	Electricity,	..	2	64,800	22,500	66,000	125
Sunshine Coal and Coke Co.																
Teresa No. 1,	Drift,	Non-gas.,	Fan,	13.0	3.6	3.6	35	0.2	Brazil,	Steam,	..	1	30,000	16,800	12,000	17
Teresa No. 2,	Drift,	Non-gas.,	Fan,	6.0	2.2	2.2	440	0.5	Buffalo Forge.	Electricity,	..	1	24,000	8,240	11,000	60
Joseph No. 9,	Drift,	Non-gas.,	Fan,	6.0	3.0	3.0	155	0.4	Sirocco,	Electricity,	..	1	38,000	11,900	15,980	67
Francis,	Drift,	Non-gas.,	Natural,	......	......	......	......	......	....	Natural,	..	1	5,000	3,800	3,000	15
Puritan Coke Co.																
Puritan,	Slope,	Gaseous,	Fan,	12.0	6.0	3.0	145	1.1	Robinson,	Steam,	..	4	78,000	60,000	79,000	124
Fayette Coke Co.																
Shamrock,	Slope,	Non-gas.,	Fan,	9.0	8.0	4.0	170	0.8	Capell,	Steam,	..	3	56,000	39,600	46,200	130
McKeefrey Coal Co.																
McKeefrey,	Drift,	Non-gas.,	Fan,	12.0	4.0	3.0	68	0.6	Cole,	Electricity,	..	3	57,800	23,650	39,000	80
W. J. Parshall																
Old Home,	Slope,	Gaseous,	Fan,	12.6	6.0	4.0	80	0.3	Clifford,	Steam,	..	1	33,280	13,800	35,000	70
South Fayette Coke Co.																
Fretts,	Slope,	Non-gas.,	Fan,	10.0	4.0	3.6	75	0.2	Brazil,	Steam,	..	1	28,200	12,800	26,000	45
Gilmore Coke Co.																
Gilmore No. 1,	Drift,	Non-gas.,	Fan,	6.0	1.0	3.0	400	0.2	Stine,	Electricity,	..	1	40,000	13,980	42,000	51
Gilmore No. 2,	Drift,	Non-gas.,	Furnace,	......	......	......	......	......	....	....	9	1	8,980	5,600	10,000	
James H. Hoover																
Hoover,	Slope,	Gaseous,	Fan,	14.0	7.0	3.5	65	.2	Capell,	Steam,	..	1	42,400	9,520	44,500	32
Plumer Coke Co.																
Plumer,	Slope,	Non-gas.,	Fan,	12.0	3.6	4.0	60	.7	C. M. and Car Co.	Electricity,	..	1	26,600	9,000	28,000	40
Poland Coal Co.																
Poland,†	Drift,	Non-gas.,	Fan,	14.4	5.4	3.0	125	.5	Clifford,	Electricity,	..	1	105,000	15,000	108,000	80
Hope Coke Co.																
Hope,	Slope,	Non-gas.,	Fan,	10.0	3.4	3.0	50	.2	Brazil,	Steam,	..	1	19,600	10,400	21,000	24

†New mine.

TABLE I.—Continued

Names of Operators and Mines	Kind of opening	Gaseous or non-gaseous	Method of ventilation	Diameter of fan in feet and inches	Width of blades in feet and inches	Depth of blades in feet and inches	Number of revolutions per minute	Water gauge developed—in inches	Name of fan	Power used	Area of furnace bars in square feet	Number of splits of air currents	Number of cubic feet of air per minute entering the mine at inlet	Total number of cubic feet of air per minute circulating in all the splits	Number of cubic feet of air per minute passing out at outlet	Number of persons employed inside
Reilley and Callaghan Nellie, ...	Drift, ...	Non-gas., .	Furnace, ..	......	......	......	......	......	....	....	25	1	7,000	5,500	8,000	23
James Byrne and Co. Finley, ...	Drift, ...	Non-gas., .	Natural, ..	......	......	......	......	......	....	....	..	1	5,620	4,110	6,000	10

Note.—Where more air is recorded passing in at inlet than passing out at outlet, the mines have shallow cover and numerous surface breaks, and are also ventilated by force fans. While the air travels over gobs a portion of it escapes through the surface breaks.

Where more air is recorded passing out at outlet than passing in at inlet, the surface is not broken and the full quantity travels the entire route, and, in the winter season, is expanded by coming in contact with the surfaces in the mine that are warmer than the outer air. This will be true with exhaust or force fans or furnace.

Where more air is recorded passing in at inlet than passing out at outlet, and a furnace or exhaust fan is used, it is caused by shallow broken surface that permits the natural forces to operate against the effects of the exhaust fan or furnace.

TABLE J.—Mines using coal cutting machines, power used, geological and local names of seams, thickest and thinnest seams where machines are used, and the approximate number of tons produced by machines

Names of Operators	Names of Mines	Kind of opening	Gaseous or non-gaseous	Number of mining machines used	Power used by machines	Geological and local names of seams	Average thickness in inches	Height of Seam in Inches: Thickest	Height of Seam in Inches: Thinnest	Approximate number of tons produced by machines
H. C. Frick Coke Co.,	Shoaf No. 1,	Drift,	Non-gas.,	7	Electricity,	Pittsburgh,	88	100	76	161,759
	Leckrone No. 1,	Drift, Slope,	Non-gas.,	8	Electricity,		90	96	84	314,825
	Buffington,	Shaft,	Gaseous,	6	Compressed air,		100	112	88	148,409
	Edenborn,	Shaft,	Gaseous,	8	Compressed air,		90	96	84	212,756
	Ronco,	Shaft,	Gaseous,	10	Compressed air,		95	98	92	222,721
	Footdale,	Drift, Slope,	Gaseous,	7 1	Electricity, Compressed air,		96	108	84	166,805 4,390
	York Run,	Drift, Slope,	Gaseous,	8	Electricity,		75	90	66	274,000
	Collier,	Shaft,	Gaseous,	5	Compressed air,		87	104	72	128,867
	Lambert,	Shaft,	Gaseous,	6	Compressed air,		98	108	87	157,808
	Gates Nos. 1 and 2,	Shaft,	Gaseous,	7	Compressed air,		98	108	87	174,781
Totals,				73			......	......	......	1,966,616
Consolidated Connellsville Coke Co.	Donald No. 2,	Drift,	Non-gas.,	1	Electricity,	Pittsburgh,	90	101	76	14,116
	Donald No. 3,	Slope,	Gaseous,	2	Compressed air,		90	104	76	15,692
	Donald No. 4,	Shaft,	Gaseous,	10	Compressed air,		92	108	76	185,652
Totals,				13			......	......	......	215,460
Republic Iron and Steel Co.,	Martin,	Drift,	Non-gas.,	1	Electricity,	Pittsburgh,	90	132	48	891
Sunshine Coal and Coke Co.,	Joseph No. 9,	Drift,	Non-gas.,	2	Electricity,	Sewickley,	60	72	48	30,000
W. J. Parshall,	Old Home,	Slope,	Gaseous,	4	Compressed air,	Pittsburgh,	100	104	96	45,000
Poland Coal Co.,	Poland,	Drift,	Non-gas.,	2	Electricity,	Pittsburgh,	72	108	36	49,544
Grand totals,				95			......	......	......	2,307,511

TABLE 1.—Operators, Location of Mines, Railroads, etc.

Names of Operators and Mines	County	Name of General Superintendent	Post Office	Name of Superintendent	Post Office	Railroad to Mine
H. C. Frick Coke Co.						
Shoaf Nos. 1 and 2,	Fayette,	W. H. Clingerman,	Scottdale,	Frank E. Emory,	Smithfield R. F. D. No. 7.	Penna. and B. and O.
Leckrone Nos. 1, 2 and 3,				John A. Ramsay,	Leckrone,	Penna., B. and O. and Monongahela
Buffington,				James Hart,	New Salem,	Monongahela
Edenborn,				John F. McCracken,	Edenborn,	Monongahela
Ronco,				Charles K. McCaffrey	Ronco,	Monongahela
Footedale,				Robert S. Skemp,	New Salem,	Monongahela
York Run,				E. B. Beerbauer,	Smithfield, R. F. D. No. 7.	Penna. and B. and O.
Collier,				C. H. Pittman,	Smithfield, R. F. D. No. 7.	Penna. and B. and O.
Lambert,				H. N. Boyd,	Lamberton,	Monongahela
Gates Nos. 1 and 2,				H. N. Boyd,	Adah,	Monongahela
Palmer,*				H. N. Boyd,	Adah,	Monongahela
Ralph,*				H. N. Boyd,	New Salem, R. F. D. No. 18.	Monongahela
Consolidated Connellsville Coke Co.						
Donald Nos. 1, 2 and 3,	Fayette,	George Whyel,	Uniontown,	A. J. Foy,	Grays Landing,	Monongahela
Donald No. 4,				Charles J. Maher,	Mount Sterling,	
Bessemer Coke Co.						
Griffin No. 1,	Fayette,	W. L. Affelder,	Pittsburgh,	D. R. Depriest,	Masontown,	Monongahela
Mack,						
Bise,						
Griffin No. 2,	Fayette,	W. L. Affelder,	Pittsburgh,	Arthur N. Young,	Masontown,	Monongahela
Republic Iron and Steel Co.						
Martin,	Fayette,	George W. Gehres,	Republic,	George E. Davis,	Martin,	Monongahela
Sunshine Coal and Coke Co.						
Teresa Nos. 1 and 2,	Fayette,	J. B. Topham,	Uniontown,	Thomas L. Wilkinson,	Masontown, R. F. D. No. 15.	Monongahela
Joseph No. 9,						
Francis,						
Puritan Coke Co.						
Puritan,	Fayette,	Francis R. Crow,	McClellandtown,	Francis R. Crow,	McClellandtown,	Monongahela

*Abandoned.

Fayette Coke Co. Shamrock,	Fayette,	Charles E. Lenhart,	New Salem,	George H. Reynolds,	New Salem,	Monongahela
McKeefrey Coal Co. McKeefrey,	Fayette,	W. D. McKeefrey,	Leetonia, Ohio,	James Henderson,	Martin,	Monongahela
W. J. Parshall Old Home,	Fayette,	W. J. Parshall,	Uniontown,	Luke Shaw,	McClellandtown,	Monongahela
South Fayette Coke Co. Fretts,	Fayette,	J. W. Abraham,	Uniontown,	J. S. Conners,	Messmore,	Pennnsylvania
Gilmore Coke Co. Gilmore Nos. 1 and 2,	Fayette,	Guy B. Gilmore,	Uniontown,	Ewing B. Swaney,	Smithfield, R. F. D. No. 7.	B. and O.
James H. Hoover Hoover,	Fayette,	James H. Hoover,	McClellandtown, R. F. D. No. 17.	James H. Hoover,	McClellandtown, R. F. D. No. 17.	Monongahela
Plumer Coke Co. Plumer,	Fayette,	Guy B. Gilmore,	Uniontown,	Edward Eberly,	McClellandtown,	Monongahela
Poland Coal Co. Poland,†	Greene,	R. C. Crawford,	Pittsburgh,	J. M. Crawford,	Point Marion,	Monongahela
Hope Coal Co. Hope,	Fayette,	J. E. Hustead,	Uniontown,	W. B. Hustead,	Uniontown,	B. and O.
Reilley and Callaghan Nellie,	Fayette,	W. J. Reilley,	Smithfield, R. F. D. No. 7.	W. J. Reilley,	Smithfield, R. F. D. No. 7.	B. and O.
James Byrne and Co. Finley,	Fayette,	James Byrne,	Everson,	John Pollick,	New Salem,	Monongahela

†New mine.

TABLE 2.—Number of tons of coal mined and tons of coke produced, number of days worked, number of persons employed, number killed and injured, quantity of powder, dynamite and permissible explosives used, etc.

Names of Operators and Mines	County	Number of tons of coal shipped to market	Number of tons used at mines for steam and heat	Number of tons sold to local trade and used by employes	Number of tons used in manufacture of coke	Total production of coal in tons	Total production of coke in tons	Number of coke ovens	Number of days worked	Number of employes	Number of fatal accidents	Number of non-fatal accidents	Explosives			Number of horses and mules
													Number of pounds of powder used	Number of pounds of dynamite used	Number of pounds of permissible explosives used	
H. C. Frick Coke Co.																
Shoaf Nos. 1 and 2, ...	Fayette, ...	154,920	....	1,168	421,624	577,712	263,515	448	290	456	....	1	....	....	66,400	73
Leckrone Nos. 1, 2 and 3		6,746	7,627	5,548	513,680	533,601	321,050	516	291	424	....	1	....	....	85,131	30
Buffington, ...		....	12,115	4,258	447,406	463,779	273,628	426	293	411	2	1	....	....	18,525	85
Edenborn, ...		....	17,142	4,553	440,817	462,512	275,511	500	291	411	2	....	....	....	27,925	61
Ronco, ...		32,743	26,341	1,837	393,611	454,532	246,007	350	294	410	4	1	....	....	36,000	67
Footedale, ...		....	6,608	5,522	426,831	438,961	266,769	400	290	364	....	....	....	....	64,000	51
York Run, ...		1,376	111	3,151	398,303	402,941	265,533	500	294	417	2	1	....	....	50,300	42
Collier, ...		....	1,107	1,960	399,643	402,710	249,777	400	294	315	1	....	....	....	37,175	50
Lambert, ...		1,524	17,277	2,812	371,644	393,257	232,277	462	292	393	....	....	....	....	17,755	51
Gates Nos. 1 and 2, ...		310,769	17,694	1,313	....	329,776	....	......	298	264	2	....	....	....	22,375	27
Totals, ...	....	508,078	106,022	32,122	3,813,559	4,459,781	2,400,067	4,002	......	3,865	13	5	....	....	425,586	537
Consolidated Connellsville Coke Co.																
Donald Nos. 1 and 2, ..	Fayette, ...	988	10,520	1,530	321,254	334,292	214,170	402	279	424	....	8	....	....	57,781	40
Donald No. 3, ...		1,470	4,496	840	122,986	129,792	81,991	160	212	167	....	....	....	....	19,592	10
Donald No. 4, ...		134	1,752	2,350	275,016	279,252	183,344	310	290	281	....	5	....	....	69,463	18
Totals, ...	....	2,592	16,768	4,720	719,256	743,336	479,506	872	......	872	....	13	....	....	146,836	68
Bessemer Coke Co.																
Griffin No. 1, Mack and Bise, ...	Fayette, ...	....	4,850	1,032	234,275	240,157	192,003	200	311	310	....	2	....	....	124,400	40
Griffin No. 2, ...		....	3,433	900	113,797	118,130	87,548	196	293	180	....	3	....	....	58,600	28
Totals, ...	....	....	8,283	1,932	348,072	358,287	279,551	396	......	490	....	5	....	....	183,000	68

Republic Iron and Steel Co. Martin,	Fayette,	....	3,261	503	236,843	240,607	153,948	244	307	240	1	3	....	....	36,000	32
Sunshine Coal and Coke Co.																
Teresa Nos. 1 and 2,	Fayette,	8,450	411	218	147,000	156,074	98,100	240	281	156	2	....	....	....	25,000	21
Joseph No. 9,		38,918	1,620	204	....	40,742	....	......	281	75	....	....	....	....	15,000	10
Francis,		....	32	10	12,700	12,742	8,450	50	206	32	....	....	....	....	5,000	8
Totals,	....	47,368	2,063	427	159,700	209,558	106,550	290	......	263	2	....	....	....	45,000	39
Puritan Coke Co. Puritan,	Fayette,	....	2,125	1,320	168,231	171,676	139,076	202	301	197	....	....	....	....	20,000	20
Fayette Coke Co. Shamrock,	Fayette,	....	2,219	1,109	158,332	161,660	125,067	260	270	211	....	....	....	....	18,900	12
McKeefrey Coal Co. McKeefrey,	Fayette,	10,468	763	275	89,754	101,260	62,014	202	226	136	....	....	....	....	18,000	14
W. J. Parshall Old Home,	Fayette,	272	4,500	500	69,000	74,272	61,000	100	290	130	....	....	....	....	15,000	14
South Fayette Coke Co. Fretts,	Fayette,	....	1,460	200	69,262	70,922	44,700	80	249	73	1	....	....	....	7,000	9
Gilmore Coke Co. Gilmore Nos. 1 and 2,	Fayette,	....	......	100	70,000	70,100	70,000	101	250	110	....	....	....	....	11,000	10
James H. Hoover Hoover,	Fayette,	....	1,575	2,880	45,545	50,000	38,575	74	288	56	....	....	....	....	10,000	4
Plumer Coke Co. Plumer,	Fayette,	....	....	....	50,000	50,000	30,000	72	250	76	1	....	....	....	9,000	5
Poland Coal Co. Poland,	Greene,	2,473	3,010	111	43,950	49,544	33,636	101	222	104	1	....	....	....	16,000	1
Hope Coke Co. Hope,	Fayette,	3,215	277	300	45,535	49,327	21,917	38	307	37	....	....	....	....	3,600	6
Reilley and Callaghan Nellie,	Fayette,	32,700	250	250	....	33,200	....	......	220	25	....	....	....	....	4,000	4
James Byrne and Co. Finley,	Fayette,	....	540	60	13,365	13,965	9,900	32	142	32	....	....	....	....	1,020	5
Grand totals,	....	607,166	153,116	46,809	6,100,404	6,907,495	1,633,486	7,066	......	6,917	19	26	....	....	969,942	848

TABLE 2—Part 2

Names of Operators	County	Number of Boilers					Locomotives				Number of steam engines of all classes	Total horse power	Number of pumps delivering water to surface	Capacity in gallons per minute	Quantity delivered to surface per minute—gallons	Number of electric dynamos	Number of air compressors
		Cylindrical	Horse power	Tubular	Horse power	Total horse power	Gasoline	Steam	Air	Electric							
H. C. Frick Coke Co., ...	Fayette, ...	......	......	66	13,020	13,020	......	5	18	26	81	12,855	16	9,661	3,682	21	27
Consolidated Connellsville Coke Co., ...	Fayette, ...	......	......	20	3,350	3,350	......	......	......	6	13	2,598	2	450	300	5	3
Bessemer Coke Co., ...	Fayette, ...	......	......	7	1,000	1,000	......	......	......	3	5	640	2	150	130	2	1
Republic Iron and Steel Co.,...	Fayette, ...	......	......	5	530	530	......	......	......	3	2	545	......	......	......	2	......
Sunshine Coal and Coke Co.,...	Fayette, ...	......	......	5	550	550	......	......	......	2	3	155	2	200	100	2	......
Puritan Coke Co., ...	Fayette, ...	......	......	4	600	600	......	......	......	......	2	640	1	587	500	......	......
Fayette Coke Co., ...	Fayette, ...	......	......	5	480	480	......	......	......	2	3	240	3	1,150	250	......	1
McKeefrey Coal Co., ...	Fayette, ...	......	......	4	600	600	......	......	......	2	3	600	......	......	......	2	......
W. J. Parshall, ...	Fayette, ...	......	......	2	300	300	......	......	......	......	3	300	1	100	75	......	1
South Fayette Coke Co., ...	Fayette, ...	1	150	....	....	150	......	......	......	......	1	50	1	200	100	......	1
Gilmore Coke Co., ...	Fayette, ...	......	......	....	....	....	......	......	......	1	......	......	......	......	......	3	......
James H. Hoover, ...	Fayette, ...	......	......	1	120	120	......	......	......	......	3	120	1	75	60	......	1
Plumer Coke Co., ...	Fayette, ...	......	......	....	....	....	......	......	......	......	......	......	1	400	400	2	......
Poland Coal Co., ...	Greene, ...	......	......	4	600	600	......	......	......	3	3	325	1	78	30	2	......
Hope Coke Co., ...	Fayette, ...	......	......	1	60	60	......	......	......	......	2	42	......	......	......	......	......
James Byrne and Co., ...	Fayette, ...	......	......	1	40	40	......	......	......	......	1	40	......	......	......	......	......
Totals, ...	....	1	150	125	21,250	21,400	......	5	18	48	125	19,150	31	13,061	5,627	41	35

TABLE 3.—Number of Each Class of Employes Inside and Outside of Mines

Names of Operators	County	Inside												Outside								Grand total inside and outside
		Mine foremen	Assistant mine foremen	Fire bosses	Miners	Machine runners	Machine loaders	Machine scrapers	Drivers and runners	Doorboys and helpers	Company men	All other employes	Total inside	Superintendents	Foremen	Blacksmiths and carpenters	Engineers and firemen	Coke employes	Bookkeepers and clerks	All other employes	Total outside	
H. C. Frick Coke Co., ...	Fayette, .	12	35	24	826	66	420	65	194	16	658	127	2,443	10	29	106	90	790	22	375	1,422	3,865
Consolidated Connellsville Coke Co., ...	Fayette, .	3	3	7	214	13	100	13	50	....	70	....	473	2	12	21	20	292	6	46	399	872
Bessemer Coke Co., ...	Fayette, .	3	2	4	234	....	....	....	30	8	12	36	329	2	5	11	9	120	2	12	161	490
Republic Iron and Steel Co., ..	Fayette. .	1	....	1	89	1	4	1	11	1	6	10	125	1	2	5	3	61	2	41	115	240
Sunshine Coal and Coke Co., ..	Fayette, .	3	....	....	70	3	50	3	9	....	21	....	159	1	1	6	5	60	2	29	104	263
Puritan Coke Co., ...	Fayette, .	1	....	2	83	....	....	....	12	2	....	24	124	1	3	3	5	34	1	26	73	197
Fayette Coke Co., ...	Fayette, .	1	....	1	82	....	....	....	12	....	14	20	130	1	1	3	3	67	1	5	81	211
McKeefrey Coal Co., ...	Fayette, .	1	....	1	50	....	....	...	5	....	20	3	80	1	2	2	2	40	1	8	56	136
W. J. Parshall, ...	Fayette, .	1	....	1	12	4	36	4	5	....	7	....	70	1	1	1	3	45	1	8	60	130
South Fayette Coke Co., ...	Fayette, .	1	....	....	35	....	....	....	3	....	6	....	45	....	....	2	1	25	....	....	28	73
Gilmore Coke Co., ...	Fayette, .	1	....	....	40	....	....	....	4	....	....	6	51	1	1	1	1	45	....	10	59	110
James H. Hoover, ...	Fayette, .	1	....	1	23	....	....	....	4	....	2	1	32	1	....	1	3	17	....	2	24	56
Plumer Coke Co., ...	Fayette, .	1	....	1	30	...	....	....	3	....	....	5	40	1	....	1	1	20	....	13	36	76
Poland Coal Co., ...	Greene, ..	1	1	....	......	6	50	6	1	....	15	....	80	1	1	2	4	15	1	....	24	104
Hope Coke Co., ...	Fayette, .	1	....	....	16	....	....	....	5	....	....	2	24	....	....	1	....	12	....	....	13	37
Reilley and Callaghan, ...	Fayette, .	1	....	....	17	....	....	....	3	....	1	1	23	....	....	1	....	......	....	1	2	25
James Byrne and Co., ...	Fayette, .	1	....	....	8	....	....	....	1	....	....	....	10	1	....	1	1	8	1	10	22	32
Totals, ...	....	34	41	43	1,829	93	660	92	352	27	832	235	4,238	25	58	168	151	1,651	40	586	2,679	6,917

TABLE 3.—Part 2

Names of Operators	County	Average Number of Days Worked												
		January	February	March	April	May	June	July	August	September	October	November	December	Totals
H. C. Frick Coke Co.,	Fayette,	27	24	25	25	27	25	26	26	26	26	21	16	294
Consolidated Connellsville Coke Co.,	Fayette,	27	24	26	23	27	22	23	21	20	18	16	14	261
Bessemer Coke Co.,	Fayette,	26	24	26	25	24	25	26	23	26	26	25	26	302
Republic Iron and Steel Co.,	Fayette,	27	24	25	23	27	25	26	26	26	27	25	26	307
Sunshine Coal and Coke Co.,	Fayette,	24	23	23	21	22	23	26	25	22	18	17	13	256
Puritan Coke Co.,	Fayette,	26	24	25	24	26	25	25	26	26	25	24	25	301
Fayette Coke Co.,	Fayette,	27	24	25	22	26	25	23	24	18	13	20	23	270
McKeefrey Coal Co.,	Fayette,	27	24	26	3	......	6	19	23	26	27	24	21	226
W. J. Parshell,	Fayette,	26	24	27	26	26	25	25	26	21	21	22	21	290
South Fayette Coke Co.,	Fayette,	25	24	25	22	26	21	17	19	15	12	21	22	249
Gilmore Coke Co.,	Fayette,	26	25	26	26	26	25	24	20	20	16	14	2	250
James H. Hoover,	Fayette,	27	24	24	23	27	24	20	26	22	20	26	25	288
Plumer Coke Co.,	Fayette,	26	25	26	26	26	25	24	20	20	16	14	2	250
Poland Coal Co.,	Greene,	......	......	......	23	26	25	25	24	25	25	24	25	222
Hope Coke Co.,	Fayette,	27	24	26	26	26	25	26	26	26	27	24	24	307
Reilley and Callaghan,	Fayette,	16	15	16	18	22	20	21	20	19	20	18	15	220
James Byrne and Co.,	Fayette,	27	24	26	26	......	......	......	27	12	......	......	......	142

TABLE 4.—Fatal Accidents Inside and Outside of Mines

Date of accident		Name of Person	Nationality	Occupation	Age	Married or single	Number of widows	Number of orphans	Name of Mine	County	Nature and Cause of Accident in Brief
Jan.	4	Martin Horwatt, ...	Slavonian, .	Coke employe,.	28	S.	....	....	Fretts, ...	Fayette, ...	Instantly killed while placing empty coke cars by slipping off the bumper under the moving cars. Outside.
	25	Joseph Friere, ...	Italian, ...	Laborer, ...	27	S.	....	....	Ronco, ...		Instantly killed by fall of slate at face of entry. He failed to use center post for protection.
May	14	Joseph Cappoline, ...	Italian, ...	Laborer, ...	60	M.	1	....	Gates No. 1, ..		Fatally injured about abdomen by road wagon upsetting on him. Died in hospital May 17. Outside.
	24	James Grinozza, ...	Italian, ...	Miner, ...	36	M.	1	4	Collier, ...		Instantly killed by fall of slate while cutting out back stump to make a fall.
	25	John Orzinsky, ...	Slavonian, .	Timberman, ..	48	M.	1	2	Gates No. 1, ..		Instantly killed by fall of slate on North Main entry, near 13 Butt west, while placing temporary post.
June	9	Tony Crope, ...	Italian, ...	Electrician, ...	22	S.	....	....	Teresa No. 2,		Instantly killed by electric shock from trolley wire on main entry. While helping the electrician to put up a branch feed wire to a pump, he came in contact with the wire.
July	11	Charles Blisnitz, ...	Slavonian, ..	Miner, ...	36	M.	1	1	Plumer, ...		Instantly killed by fall of slate.
	19	Joe Pabolo, ...	Polish, ...	Coke employe,.	18	S.	....	....	Buffington, ...		Fatally injured by cars on coke yard track. Died in hospital July 20. Outside.
Aug.	2	Michael Sakovish, ...	Polish, ...	Miner, ...	45	S.	....	....	York Run, ...		Instantly killed by fall of slate at entrance to room on the entry.
	4	Hugh McCallum, ...	American, ..	Motorman, ...	31	M.	1	....	Poland, ...	Greene, ...	Fatally injured by falling under car. Outside.
	8	Edward Lawler, ...	American, ..	Driver, ...	23	M.	1	....	Edenborn, ...	Fayette, ...	Fatally injured by being caught on tight side between car and rib.
	12	Meli Bosnick, ...	Horwat, ...	Driver, ...	19	S.	....	....	Martin, ...		Instantly killed by being squeezed between empty car and rib on the tight side. He fell off the front end of empty car while on his way up the entry.
	16	Lute Cooley, ...	American, ..	Driver, ...	36	M.	1	3	York Run, ...		Instantly killed by fall of slate while turning the empty car into No. 18 room.

TABLE 4—Continued

Date of accident		Name of Person	Nationality	Occupation	Age	Married or single	Number of widows	Number of orphans	Name of Mine	County	Nature and Cause of Accident in Brief
Oct.	28	Elsworth Mundell, ...	American, ..	Coke employe..	19	S.	....	....	Ronco, ...	Fayette, ...	Fatally injured by falling under car. Outside.
Nov.	11	Francis H. Seamons,.	French, ...	Fire boss, ...	48	M.	1	4	Ronco, ...		Instantly killed by fall of roof on main butt entry.
	14	George Corrass, ...	Horwat, ...	Company man,	41	M.	1	4	Buffington, ...		Fatally injured by cars. While oiling rollers on the main haulage he was struck by the loaded rope trip about 800 feet from the shaft. He probably misjudged the distance of the approaching trip.
Dec.	2	Andy Beber, ...	Austrian, ...	Brakeman, ...	20	S.	....	....	Edenborn, ...		Fatally injured by falling under cars.
	6	George Fustar, ...	Horwat, ...	Driver, ...	20	S.	....	....	Teresa No. 2, .		Instantly killed by being caught on tight side between front car of his loaded trip and rib.
	29	Michael Stanish, ...	Horwat, ...	Miner, ...	37	M.	1	3	Ronco, ...		Instantly killed by fall of slate in rib, while digging coal from the front stump.

TABLE 5.—Non-Fatal Accidents Inside and Outside of Mines

Date of accident		Name of Person	Nationality	Occupation	Age	Married or single	Name of Mine	County	Nature and Cause of Accident in Brief
Jan.	9	Steve Burco,	Slavonian,	Brakeman,	29	S.	Leckrone No. 1,	Fayette,	Left leg broken by coming in contact with moving motor.
	17	Paul Cametsky,	Austrian,	Miner,	40	M.	Donald No. 4,		Leg fractured by being caught between car and rib.
Feb.	4	Michael Fidek,	Russian,	Driver,	28	M.	Donald No. 2,		Right ankle fractured between bumpers of cars.
	6	Michael Birkish,	Horwat,	Machinist,	30	M.	Griffin No. 1,		Right leg fractured near the hip by falling down steps leading from tipple to surface. Outside.
	12	Martin Menock,	Slavonian,	Driver,	32	M.	Martin,		Right eyeball bruised by kick of mule.
	19	Newton Clark,	American,	Carpenter,	49	M.	Griffin No. 2,		Bruised about hips by falling from trestle. Outside.
March	5	Frank Slablie,	Slavonian,	Driver,	25	M.	Donald No. 4,		Right leg fractured below knee by mule falling on him.
	13	George Remick,	Russian,	Miner,	56	M.	Donald No. 2,		Two ribs fractured and back bone injured by fall of slate at face of working place. He failed to set post.
April	30	William Cook,	Horwat,	Trip rider,	31	M.	Donald No. 2,		Great toe crushed between bumpers of empty cars that were wrecked while swinging the trip into side track.
June	11	Joseph Hovanes,	Slavonian,	Driver,	18	S.	Donald No. 2,		Laceration of great toe between loaded cars.
	12	William Milligan,	American,	Laborer,	18	S.	Donald No. 2,		Two ribs fractured by being thrown from car.
	13	Joseph Brinsky,	Polish,	Miner,	53	M.	Shoaf No. 2,		Simple fracture of left femur by fall of slate while loading car in his room. He neglected to put up a center post.
July	1	Frank Gallause,	Italian,	Laborer,	20	S.	Donald No. 4,		Both legs broken below the knee, squeezed about hips and foot injured while riding on top of motor that was wrecked.
	19	George Goodman,	American,	Driver,	26	S.	Donald No. 4,		Broken bone in instep and lacerated ankle by being caught between the bumpers of the cars when they derailed on the entry.

TABLE 5—Continued

Date of accident		Name of Person	Nationality	Occupation	Age	Married or single	Name of Mine	County	Nature and Cause of Accident in Brief
July	24	Andy Posca, ...	Austrian, ...	Charger, ...	26	M.	Griffin No. 2, ...	Fayette, ...	Foot and ankle burned with coke ashes on oven. He slipped into a hole of the brickwork. Outside.
Aug.	3	John Bokevich, ...	Horwat, ...	Car shifter, ...	22	S.	Griffin No. 1, ...		Right foot cut off and compound fracture of left leg below knee by cars. Outside.
	16	Richard Wilson, ...	American, ..	Fire boss, ...	27	M.	York Run, ...		Scalp wound and bruise on back by fall of slate on entry near the landing.
	19	Joseph Tason, ...	Italian, ...	Miner, ...	29	M.	Ronco, ...		Dislocation of right hip and bruised side by fall of slate while testing the roof in rib where fall had previously occurred.
Sept.	11	Mitchell Dioggoze, ...	Austrian, ...	Coke employe, ...	40	M.	Griffin No. 2, ...		Right wrist broken by slipping off running board and falling on track. Outside.
Oct.	9	Steven Smith, ...	Slavonian, .	Car shifter, ...	40	M.	Donald No. 4, ...		Right forearm fractured by slipping off car and falling to the ground while shifting cars before daylight. Outside.
	22	Frank Tellco, ...	Italian, ...	Laborer, ...	40	M.	Martin, ...		Fracture of left arm by being squeezed on tight side between cars and rib while coupling cars on entry.
	24	Vincent Polo, ...	Magyar, ...	Miner, ...	30	M.	Buffington, ...		Left leg broken between knee and ankle by fall of slate in rib while setting post under it.
Nov.	13	Michael Lischka, ...	Polish, ...	Miner, ...	32	S.	Martin, ...		Concussion of the brain by being struck by coal from a blast in rib.
	18	Summer Brown, ...	American, ..	Charger	28	M.	Donald No. 2, ...		Right leg broken above ankle in collision of two larries on ovens. Outside.
	20	Nicholas Bosnick, ...	Horwat, ...	Driver, ...	27	M.	Donald No. 2, ...		Compound fracture of leg below knee by being caught between bumpers.
	25	John Rankin, ...	American, ..	Pumper	44	M.	Donald No. 2, ...		Ankle bruised by slipping off cradle of supply pump at the river. Outside.

CONDITION OF MINES

H. C. FRICK COKE COMPANY

Shoaf Nos. 1 and 2, Leckrone Nos. 1, 2 and 3, Buffington, Edenborn, Ronco, Footedale, York Run, Collier, Lambert and Gates Nos. 1 and 2.—Ventilation, drainage and general condition, good. Palmer and Ralph were idle the entire year, the shafts having been sealed off.

Buffington, Edenborn, Ronco, Footedale Slope, York Run, Collier, Lambert and Gates Nos. 1 and 2 are gaseous and are worked with approved locked safety lamps. The dust is dampened by sprays and sprinkling hose from a water pipe system.

Shoaf Nos. 1 and 2, Leckrone Nos. 1, 2 and 3 and Footedale Drift are non-gaseous and naturally damp, and are worked with open lights. Permissible explosives are used in all the mines for blasting and competent men are employed to fire shots. Competent men are also employed to visit and instruct employes in pillar work in regard to safety.

CONSOLIDATED CONNELLSVILLE COKE COMPANY

Donald Nos. 1, 2, 3 and 4.—Ventilation, drainage and general condition, good. The mines are naturally damp and require no sprinkling. Nos. 1 and 2 are non-gaseous and worked with open lights; Nos. 3 and 4 are gaseous and are worked with approved locked safety lamps. Permissible explosives are used in all the mines and the mines are examined by fire bosses.

BESSEMER COKE COMPANY

Griffin No. 1, Mack, Bise and Griffin No. 2.—Ventilation, drainage and general condition, good. These mines are naturally damp and require no sprinkling. Permissible explosives are used exclusively.

Griffin Nos. 1 and 2 are gaseous and are worked with approved safety lamps. Mack and Bise are non-gaseous. Bise is worked with open lights, but Mack is worked with approved locked safety lamps as a precautionary measure.

REPUBLIC IRON AND STEEL COMPANY

Martin.—Ventilation, drainage and general condition, fair. Permissible explosives are used exclusively. The mine is naturally damp and requires no sprinkling. It is non-gaseous and worked with open lights.

SUNSHINE COAL AND COKE COMPANY

Teresa Nos. 1 and 2, Joseph No. 9 and Francis.—Ventilation, drainage and general condition, good. Permissible explosives are used exclusively. These mines are non-gaseous and are worked with open lights.

PURITAN COKE COMPANY

Puritan.—Ventilation, drainage and general condition, good. Permissible explosives are used exclusively and competent shot-firers are employed to fire all holes while the workmen are out of the mine. The mine is naturally damp and requires no sprinkling. It is gaseous and worked with approved locked safety lamps.

FAYETTE COKE COMPANY

Shamrock.—Ventilation, drainage and general condition, good. Permissible explosives are used exclusively. The mine is naturally damp and requires no sprinkling. It is non-gaseous, but is examined by a fire boss, and approved locked safety lamps are used on pillar work as a precautionary measure.

McKEEFREY COAL COMPANY

McKeefrey.—Ventilation, drainage and general condition, good. Permissible explosives are used exclusively and competent men are employed to fire all holes, while the workmen are out of the mine. The mine is naturally damp and requires no sprinkling. It is non-gaseous and worked with open lights.

W. J. PARSHALL

Old Home.—Ventilation, drainage and general condition, good. Permissible explosives are used exclusively and competent shot firers are employed to fire all holes. The mine is naturally damp and requires no sprinkling. It is gaseous and worked with approved locked safety lamps.

SOUTH FAYETTE COKE COMPANY

Fretts.—Ventilation, drainage and general condition, good. Permissible explosives are used exclusively. The mine is damp and non-gaseous and is worked with open lights.

GILMORE COKE COMPANY

Gilmore Nos. 1 and 2.—Ventilation, drainage and general condition, good. Permissible explosives are used exclusively. The mines are damp and non-gaseous and are worked with open lights.

JAMES H. HOOVER

Hoover.—Ventilation, drainage and general condition, good. Permissible explosives are used exclusively and a competent man is employed to fire all holes. The mine is damp and requires no sprinkling. The second last section is gaseous and worked with approved locked safety lamps.

PLUMER COKE COMPANY

Plumer.—Ventilation, drainage and general condition, good. Permissible explosives are used exclusively and competent men are employed to fire all holes while the workmen are out of the mine. The mine is naturally damp and is non-gaseous, but is worked with approved locked safety lamps and examined by a fire boss as precautionary measures.

POLAND COAL COMPANY

Poland.—A new mine not yet completed. It is naturally damp and needs no sprinkling. It is non-gaseous and worked with open lights. Permissible explosives are used exclusively.

HOPE COKE COMPANY

Hope.—Ventilation, drainage and general condition, good. Permissible explosives are used exclusively. The mine is naturally damp and requires no sprinkling. It is non-gaseous and worked with open lights.

REILLEY AND CALLAGHAN

Nellie.—Ventilation, drainage and general condition, good. Permissible explosives are used exclusively. The mine is naturally damp and requires no sprinkling. It is non-gaseous and worked with open lights.

JAMES BYRNE AND COMPANY

Finley.—Ventilation, drainage and general condition, fair. Permissible explosives are used exclusively. The mine is damp and requires no sprinkling. It is non-gaseous and worked with open lights.

IMPROVEMENTS

H. C. FRICK COKE COMPANY

Shoaf No. 1.—Built 2 permanent, fire-proof overcasts, 29 permanent, fire-proof stoppings and 10 double houses.

Shoaf No. 2.—Installed electric locomotive haulage, with two 14-ton General Electric locomotives.

Leckrone No. 1.—Built 17 permanent, fire-proof stoppings. Installed 6 short wall mining machines, one 10-ton electric motor and two 7-ton electric, gathering motors.

Buffington.—Erected 54 permanent, fire-proof stoppings. Installed compressed air locomotive haulage on North Side.

Edenborn.—Built 14 permanent, fire-proof stoppings. Installed compressed air haulage, including one high stage compressor, one 16-ton and two 20-ton locomotives and a motor house. Also installed one rotary dump, and built one 10-room, single tenement.

Ronco.—Constructed 3 permanent, fire-proof overcasts and 106 permanent, fire-proof stoppings. Built a 1,000-foot concrete wall along yard tracks, and a 280-foot concrete culvert, 7 by 6½, to prevent ashes from going into the river.

Footedale.—Built 3 permanent, fire-proof overcasts and 23 permanent, fire-proof stoppings. Installed one 7-ton electric gathering locomotive, two Goodman short wall electric mining machines. Built one fireproof, underground pump house and a concrete swimming pool, 40 by 80 feet, with 2 bath houses.

York Run.—Built 11 permanent, fireproof stoppings. Installed 4 short wall mining machines, two 7-ton gathering motors and built 5 double houses.

Collier.—Built 55 permanent, fireproof stoppings. Installed two Yough pumps, one 12 by 7 by 12, the other, 14 by 8 by 18.

Lambert.—Built 3 permanent, fireproof overcasts and 22 permanent, fireproof stoppings.

Gates No. 1.—Constructed 16 permanent, fireproof stoppings.

Gates No. 2.—Constructed 16 permanent, fireproof stoppings.

CONSOLIDATED CONNELLSVILLE COKE COMPANY

Donald No. 4.—Erected 85 permanent stoppings. Built one brick motor room, 22 by 14 by 8 feet. Installed one Lafayette pump, with 12 inch discharge up shaft, 24 by 14 by 36 inches. Built 150 50-bushel mine wagons and changed the capacity of 132 45-bushel wagons to 50 bushels. Extended motor haulage 1,200 feet with 40-pound T iron. Installed one 5-ton General Electric motor.

BESSEMER COKE COMPANY

Griffin No. 2.—Installed one pair Boss Corliss hoisting engines, 24 by 48 inches; erected one tile engine house and one steel frame tipple, with capacity of 375 tons. Installed one Covington coke drawing machine. Built 10 5-room dwellings and erected three 45,000-gallon tanks.

REPUBLIC IRON AND STEEL COMPANY

Martin.—New power plant installed, consisting of one 250-volt General Electric generator, one Buckeye Generator engine, three 150 H. P. tubular boilers, equipped with Parson blower system, one 50,000-gallon water tank. One motor installed to operate Jeffrey belt coal conveyor. One 5-room dwelling erected. Installed one 15-ton Baldwin Westinghouse electric locomotive. Self starter placed on ventilating fan.

McKEEFREY COAL COMPANY

McKeefrey.—Constructed a 380-foot trestle from ovens to coal tipple and one coal loading tipple.

JAMES H. HOOVER

Hoover.—Built 16 permanent, fireproof stoppings and one overcast. Installed one pump, 12 by 7 by 12. Added five safety lamps, Wolf type, in second east section.

MINE FOREMEN'S, ASSISTANT MINE FOREMEN'S AND FIRE BOSSES' EXAMINATIONS

The annual examination of applicants for certificates of qualification as mine foremen, assistant mine foremen and fire bosses was held in Lyceum Hall, Masontown, May 6, 7 and 8. The Board of Examiners was composed of Edward E. Girod, Mine Inspector; James Hart, Operator; Ignots Winalowsky, Miner.

There were 25 applicants for certificates of qualification as mine foremen and assistant mine foremen and 55 applicants for certificates of qualification as fire bosses. The following persons passed a satisfactory examination and were granted certificates:

MINE FOREMEN

First Grade

Angus C. Duffy, Smithfield; Charles Hartwick. Ronco; Cyrus A. Flesher, Edenborn; John M. King, Gray's Landing; John J. Hart, Jacob L. Burkey, Emmett P. Callaghan, New Salem.

ASSISTANT MINE FOREMEN

Jonathan S. Moody, Mt. Sterling; James E. Horner, Ronco; Daniel Mullen, Footedale; Thomas E. Loughran, Edenborn; Stephen Peters, Smithfield.

FIRE BOSSES

Thomas Collins, John J. Hart, Frank Stemnock, New Salem; Charles Freeman, Gray's Landing; William P. Reagan, William P. McGee, John E. Nolan, Hugh McGee, William Edwards, Ronco; Emil Peters, Patrick Monaghan, Lamberton; John Birosh, Michael B. McArdle, John W. Watkins, Masontown; Henry D. Lake, Mt. Sterling; Frank Gearing, Michael Hurley, Leckrone; George Laing, Adah; Joseph Marofsky, Edenborn; Calvin R. Wilson, Martin; Samuel Gaster, Smithfield; William E. Wheeler, Fairchance.

TWENTY-FOURTH DISTRICT

CAMBRIA, INDIANA, SOMERSET AND WESTMORELAND COUNTIES

Johnstown, Pa., February 11, 1914.

Hon. James E. Roderick, Chief of Department of Mines:

Sir: I have the honor to transmit herewith my report as Inspector of Mines of the Twenty-fourth Bituminous District for the year ending December 31, 1913, in compliance with the Act of Assembly of June 9, 1911.

The report contains the usual tables and statistics, a brief description of the mines and the most important improvements made during the year, a report of the legal proceedings instituted, and a report of the annual examination of applicants for certificates of qualification as mine foremen and fire bosses.

Respectfully submitted,

NICHOLAS EVANS,
Inspector.

SUMMARY OF STATISTICS

Number of mines,	46
Number of mines in operation,	46
Number of tons of coal shipped to market,	5,863,248
Number of tons used at mines for steam and heat,	120,763
Number of tons sold to local trade and used by employes,.	71,950
Number of tons used in the manufacture of coke,	7,000
Number of tons of coal produced,	6,062,961
Number of tons of coke produced,	4,664
Number of coke ovens,	53
Number of coke ovens in operation,	....
Number of tons of coal produced by pick mining,	1,749,382
Number of tons produced by compressed air machines,	1,645,503
Number of tons produced by electrical machines,	2,668,076
Number of persons employed inside of mines,	5,953
Number of persons employed outside, including coke workers,	581
Number of persons employed at manufacture of coke,	20
Number of fatal accidents inside of mines,	25
Number of fatal accidents outside,	1
Number of non-fatal accidents inside of mines,	23
Number of non-fatal accidents outside,	2
Number of tons of coal produced per fatal accident inside,	242,519
Number of tons produced per fatal accident outside,	6,062,961
Number of tons produced per fatal accident inside and outside,	233,191
Number of persons employed per fatal accident inside,.	238
Number of persons employed per fatal accident outside,.	581
Number of persons employed per fatal accident inside and outside,	251
Number of persons employed per non-fatal accident inside,	259
Number of persons employed per non-fatal accident outside,	291
Number of persons employed per non-fatal accident inside and outside,	261
Number of wives made widows,	16
Number of children made orphans,	45
Number of steam locomotives used inside of mines,	....
Number of steam locomotives used outside,	1
Number of compressed air locomotives used inside,	....
Number of compressed air locomotives used outside,	....
Number of electric motors used inside,	104
Number of electric motors used outside,	....
Number of gasoline locomotives used inside,	2
Number of fans in use,	40
Number of furnaces in use,	6
Number of gaseous mines in operation,	5
Number of non-gaseous mines in operation,	41
Number of new mines opened,	3
Number of old mines abandoned,	....

TABLE A

PRODUCTION OF COAL

Names of Operators	Tons
Berwind-White Coal Mining Company,	3,841,715
Valley Smokeless Coal Company,	416,261
Lackawanna Coal and Coke Company,	341,222
Shade Coal Mining Company,	143,512
Scalp Level Coal Mining Company,	140,000
Sunnyside Coal Company,	137,194
Lacolle Coal Mining Company,	129,761
Smokeless Coal Company,	113,581
Tunnel Smokeless Coal Company,	112,997
Kiskiminitas Coal Company,	96,320
Conemaugh Valley Coal Mining Company,	78,902
W. A. Marshall and Company,	75,418
Pennsylvania Smokeless Coal Company,	67,824
Ninevah Coal and Coke Company,	63,985
Rummel Coal Company,	60,025
Lochrie Coal Company,	60,000
Somerset and Cambria Coal Company,	35,493
Climax Coal Company,	31,034
Bolivar Coal and Coke Company,	22,247
Armerford Coal Mining Company,	21,019
A. J. Haws and Sons, Limited,	17,888
Joseph Soisson Fire Brick Company,	14,704
Highland Coal Company,	13,606
Loyal Hanna Coal and Coke Company,	10,803
W. G. S. Robertson,	10,450
C. O. Wilson,	7,000
Total,	6,062,961

Production by Counties

Somerset,	2,811,132
Cambria,	2,458,012
Indiana,	504,299
Westmoreland,	289,518
Total,	6,062,961

TABLE B.—Fatal and non-fatal accidents inside and outside of mines; number of tons of coal produced per accident; number of persons employed; number employed per accident

Names of Operators	Fatal Accidents			Non-Fatal Accidents			Tons of coal produced per fatal accident inside	Tons of coal produced per non-fatal accident inside	Number of employes inside	Number of employes outside	Total number of employes	Number of employes inside per fatal accident	Number of employes outside per fatal accident	Number of employes inside per non-fatal accident	Number of employes outside per non-fatal accident
	Inside	Outside	Total	Inside	Outside	Total									
Berwind-White Coal Mining Co., ...	15	1	16	11	......	11	256,114	349,247	3,503	208	3,711	234	208	318	....
Valley Smokeless Coal Co., ...	1	......	1	2	1	3	416,261	208,131	424	53	477	424	....	212	53
Lackawanna Coal and Coke	1	......	1	3	......	3	341,222	113,741	355	70	425	355	....	118	....
Sunnyside Coal Co., ...	4	......	4	2	......	2	34,299	68,597	154	20	174	39	....	77	....
Lacolle Coal Mining Co., ...	2	......	2	......	......	......	64,881	....	95	13	108	48	....	....	....
Smokeless Coal Co., ...	1	......	1	1	......	1	113,581	113,581	111	9	120	111	....	111	....
Tunnel Smokeless Coal Co., ...	......	......	......	1	1	2	....	112,997	131	14	145	....	....	131	14
W. A. Marshall and Co., ...	......	......	......	1	......	1	....	75,418	88	14	102	....	....	88	....
Pennsylvania Smokeless Coal Co., ...	......	......	......	1	......	1	....	67,824	118	13	131	....	....	118	....
Bolivar Coal and Coke Co., ...	1	......	1	......	......	......	22,247	....	38	24	62	38	....	....	....
Highland Coal Co., ...	......	......	......	1	....	1	....	13,606	17	10	27	....	....	17	....
Miscellaneous Companies, ...	......	......	......	......	......	......	....	....	919	133	1,052	....	....	....	....
Totals and averages for district, ...	25	1	26	23	2	25	242,519	263,607	5,953	581	6,534	238	581	259	291

TABLE C.—Classification of Fatal Accidents Inside and Outside of Mines

	Months													
	January	February	March	April	May	June	July	August	September	October	November	December	Totals	Percentages
Causes of Accidents Inside														
Falls of coal, ...	....	....	....	....	....	1	1	2	....	....	1	....	5	20.00
Falls of slate, ...	1	....	....	....	....	....	....	2	....	....	1	2	6	24.00
Falls of roof, ...	1	....	1	1	1	....	....	....	1	....	....	....	5	20.00
Mine cars, ...	1	....	....	1	....	....	1	....	1	....	....	1	5	20.00
Machinery, ...	....	1	....	....	....	....	....	....	....	....	....	....	1	4.00
Electricity, ...	1	1	....	....	....	....	....	....	....	1	....	....	3	12.00
Totals, ...	4	2	1	2	1	1	2	4	2	1	2	3	25	100.00
Causes of Accidents Outside														
Cars, ...	1	....	....	....	....	....	....	....	....	....	....	....	1	100.00
Totals, ...	1	....	....	....	....	....	....	....	....	....	....	....	1	100.00
Grand totals inside and outside, ...	5	2	1	2	1	1	2	4	2	1	2	3	26	......

TABLE D.—Classification of Non-Fatal Accidents Inside and Outside of Mines

	Months													
	January	February	March	April	May	June	July	August	September	October	November	December	Totals	Percentages
Causes of Accidents Inside														
Falls of coal, ...	....	2	....	....	....	....	....	1	....	....	....	....	3	13.04
Falls of slate, ...	....	....	....	....	....	2	....	....	....	....	....	....	2	8.70
Falls of roof, ...	....	....	....	....	....	....	....	....	3	....	....	2	5	21.74
Mine cars, ...	1	3	....	1	1	....	....	....	2	1	1	....	10	43.48
Explosions of powder and dynamite, ...	....	....	....	1	....	....	....	....	....	....	....	1	2	8.70
Blasts, premature and otherwise, ...	....	....	....	....	....	....	....	1	....	....	....	....	1	4.34
Totals, ...	1	5	....	2	1	2	....	2	5	1	1	3	23	100.00
Causes of Accidents Outside														
By trolley wire support, ...	....	....	1	....	....	....	....	....	....	....	....	....	1	50.00
Struck by rope, ...	....	1	....	....	....	....	....	....	....	....	....	....	1	50.00
Totals, ...	....	1	1	....	....	....	....	....	....	....	....	....	2	100.00
Grand totals inside and outside, ...	1	6	1	2	1	2	....	2	5	1	1	3	25	......

TABLE E.—Occupations of Persons Killed or Fatally Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
Inside													
Miners,	3	....	1	2	1	1	2	4	....	1	2	2	19
Machine runners,	....	1	....	....	....	....	....	....	....	....	....	....	1
Machine loaders,	....	1	....	....	....	....	....	....	....	....	....	....	1
Machine scrapers,	....	....	....	....	....	....	....	....	1	....	....	....	1
Trackmen,	1	....	....	....	....	....	....	....	....	....	....	....	1
Motormen,	....	....	....	....	....	....	....	....	1	....	....	1	2
Totals,	4	2	1	2	1	1	2	4	2	1	2	3	25
Outside													
Laborers,	1	....	....	....	....	....	....	....	....	....	....	....	1
Totals,	1	....	....	....	....	....	....	....	....	....	....	....	1
Grand totals inside and outside,	5	2	1	2	1	1	2	4	2	1	2	3	26

TABLE F.—Occupations of Persons Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
Inside													
Assistant mine foremen,	1	....	....	....	....	....	....	....	....	....	....	....	1
Miners,	....	4	....	1	....	2	....	2	2	....	1	3	15
Machine runners,	....	....	....	....	....	....	....	....	1	....	....	....	1
Spraggers,	....	....	....	....	....	....	....	....	1	1	....	....	2
Doorboys and helpers,	....	....	....	....	1	....	....	....	....	....	....	....	1
Shot-firers,	....	....	....	....	....	....	....	....	1	....	....	....	1
Motormen,	....	1	....	1	....	....	....	....	....	....	....	....	2
Totals,	1	5	....	2	1	2	....	2	5	1	1	3	23
Outside													
Brakemen,	....	....	1	....	....	....	....	....	....	....	....	....	1
Dumpers,	....	1	....	....	....	....	....	....	....	....	....	....	1
Totals,	....	1	1	....	....	....	....	....	....	....	....	....	2
Grand totals inside and outside,	1	6	1	2	1	2	....	2	5	1	1	3	25

TABLE G.—Nationality of Persons Killed or Fatally Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
American,	1	1	....	....	....	....	....	1	1	....	....	1	5
German,	1	....	....	....	....	....	....	....	....	....	....	....	1
Polish,	....	....	....	....	....	....	1	1	....	....	1	....	3
Hungarian,	1	1	1	....	....	1	....	1	....	....	....	1	6
Italian,	....	....	....	1	....	....	1	1	....	....	....	....	3
Slavonian,	1	....	....	1	1	....	....	....	1	....	....	1	5
Russian,	....	....	....	....	....	....	....	....	....	1	1	....	2
Magyar,	1	....	....	....	....	....	....	....	....	....	....	....	1
Totals,	5	2	1	2	1	1	2	4	2	1	2	3	26

TABLE H.—Nationality of Persons Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
American,	1	3	....	2	1	....	....	1	2	....	....	....	10
Irish,	....	....	....	....	....	....	....	....	1	....	....	....	1
Polish,	....	1	....	....	....	....	....	....	1	....	....	....	2
Italian,	....	1	....	....	....	1	....	....	....	....	1	1	4
Slavonian,	....	....	....	....	....	....	....	....	1	1	....	1	3
Austrian,	....	1	....	....	....	....	....	....	....	....	....	1	2
Russian,	....	....	....	....	....	....	....	1	....	....	....	....	1
French,	....	....	....	....	....	1	....	....	....	....	....	....	1
Horwat,	....	....	1	....	....	....	....	....	....	....	....	....	1
Totals,	1	6	1	2	1	2	....	2	5	1	1	3	25

TABLE I.—Operators and mines, kind of openings, type and size of fans, size of furnaces, volume of air produced by fan or furnace per minute, number of splits of air currents and number of persons employed inside

Names of Operators and Mines	Kind of opening	Gaseous or non-gaseous	Method of ventilation	Diameter of fan in feet and inches	Width of blades in feet and inches	Depth of blades in feet and inches	Number of revolutions per minute	Water gauge developed—in inches	Name of fan	Power used	Area of furnace bars in square feet	Number of splits of air currents	Number of cubic feet of air per minute entering the mine at inlet	Total number of cubic feet of air per minute circulating in all the splits	Number of cubic feet of air per minute passing out at outlet	Number of persons employed inside
Berwind-White Coal Mining Co.																
Eureka No. 30, ...	Drift, ...	Non-gas.,	Fan, ...	12.0	10.0	4.3	125	2.6	Capell, ...	Electricity,.		6	80,000	51,000	82,000	130
Eureka No. 31, ...				7.0	1.6	3.0	325	.5	Stine, ...			5	60,000	32,000	63,000	104
Eureka No. 34, ...				12.6	5.0	5.6	105	.7	Capell, ...			2	62,500	45,000	63,500	66
Eureka No. 35, ...				9.0	6.0	4.0	245	4.1	Sirocco, ..			18	190,000	135,000	196,000	627
Eureka No. 35, Upper, ..				7.0	4.0	3.0	160	.5	Stine, ...			3	27,000	19,000	29,000	29
Eureka No. 36, ...				16.0	6.0	7.2	146	3.7	Capell, ...			10	139,000	106,000	142,000	568
Eureka No. 37, ...				9.0	6.0	4.0	190	3.0	Sirocco, ..			10	150,000	120,000	153,000	402
Eureka No. 37, Upper, ..				8.0	1.5	3.0	372	1.1	Stine, ...			5	56,000	38,000	58,000	196
Eureka No. 39, Upper, ..				20.0	6.1	7.2	85	1.8	Capell, ...			7	155,400	125,400	158,000	359
Eureka No. 40, ...				16.0	6.1	7.2	152	4.0	Capell, ...			11	83,200	55,000	88,000	608
Eureka No. 41, ...				8.0	1.5	3.0	360	.7	Stine, ...			4	53,235	27,000	55,000	55
Eureka No. 42, ...				16.0	6.1	7.2	100	1.7	Capell, ...			13	100,000	72,050	105,800	364
Valley Smokeless Coal Co.																
Valley No. 1, ...	Drift, ...	Gaseous, ..	Fan, ...	6.0	4.4	8.0	204	1.0	Robinson, ..	Electricity,.	..	4	100,000	70,000	102,000	291
Valley No. 2, ...	Shaft, ...	Non-gas., .	Fan, ...	16.0	4.4	4.5	90	.6	Brazil, ...	Steam, ...	..	2	48,000	30,000	48,000	96
Valley No. 5, ...	Drift, ...	Non-gas., .	Furnace, ..	......	......	......	......	......	....	....	30	..	20,000	12,000	21,000	37
Lackawanna Coal and Coke Co.																
Lackawanna No. 4, ...	Shaft, ...	Gaseous, ..	Fan, ...	16.0	6.1	4.5	125	2.5	Capell, ...	Steam, ...	..	6	134,000	109,000	136,000	355
Shade Coal Mining Co.,																
Hagevo, ...	Drift, ...	Non-gas., .	Fan, ...	4.0	2.6	1.8	300	1.0	Robinson, .	Gasoline, ...	..	2	68,000	37,000	64,000	135

Scalp Level Coal Mining Co.															
Scalp Level No. 1, ...	Drift, ...	Non-gas., .	Fan, ...	4.5	3.5	1.8	215	1.0	Robinson, ..	Electricity, .	..	3	73,000	40,000	74,000	107
Sunnyside Coal Co.															
Sunnyside No. 1, ...	Drift	Non-gas., .	Fan, ...	4.0	3.10	2.8	214	.9	Robinson, ..	Electricity, .	..	3	32,000	20,000	33,000	118
Sunnyside No. 3, ...	Drift, ...	Non-gas., .	Furnace, ..	......	......	......	......	......	....	....	22	..	6,000	4,000	6,000	36
Lacolle Coal Mining Co.															
Lacolle No. 1, ...	Drift, ...	Non-gas., .	Fan, ...	8.0	1.0	2.6	160	.2	Jeffrey, ...	Electricity, .	..	2	21,000	16,000	21,800	95
Smokeless Coal Co.															
Smokeless No. 1, ...	Slope, ...	Gaseous, ..	Fan, ...	3.6	3.0	1.0	370	.8	Robinson, ..	Electricity, .	..	2	32,000	20,000	32,500	74
Smokeless No. 2, ...	Drift, ...	Non-gas., .	Fan, ...	6.0	1.5	1.5	240	.3	Stine, ...	Electricity, .	..	..	....	....	....	9
Smokeless No. 3, ...	Shaft, ...	Non-gas., .	Fan, ...	3.0	2.6	1.0	160	.3	Robinson, ..	Electricity, .	..	1	11,000	6,000	12,000	28
Tunnel Smokeless Coal Co.															
Tunnel, ...	Drift, ...	Gaseous, ..	Fan, ...	16.0	4.4	4.0	90	1.5	Brazil, ...	Steam, ...	..	2	44,000	39,300	45,000	131
Kiskiminitas Coal Co.															
Brush Valley, ...	Drift, ...	Non-gas., .	Fan, ...	12.0	4.0	3.8	90	.4	Brazil, ...	Steam, ...	..	3	45,000	25,000	46,000	107
Conemaugh Valley Coal Mining Co.															
Morrellville, ...	Drift, ...	Non-gas., .	Fan, ...	10.0	3.8	3.0	100	.5	Capell, ...	Electricity, .	..	2	40,000	25,000	41,000	97
W. A. Marshall and Co.															
Maple Ridge No. 2, ...	Drift, ...	Non-gas., .	Fan, ...	3.5	3.0	1.4	350	.75	Robinson, ..	Electricity, .	..	..	18,000	10,000	18,500	64
Maple Ridge No. 3, ...	Slope, ...	Non-gas., .	Fan, ...	7.0	1.5	1.4	85	.5	Stine, ...	Steam, ...	..	..	8,000	6,000	8,500	24
Pennsylvania Smokeless Coal Co.															
Lenore, ...	Shaft, ...	Gaseous, ..	Fan, ...	16.0	6.0	6.0	75	1.0	Vulcan, ...	Steam, ...	..	1	34,000	20,000	34,500	67
Oneida, ...	Slope, ...	Non-gas., .	Fan, ...	12.0	4.0	4.0	60	.5	Cole, ...	Steam, ...	..	..	16,500	10,000	16,500	51
Ninevah Coal and Coke Co.															
Valley No. 6, ...	Drift, ...	Non-gas., .	Fan, ...	16.0	6.5	5.0	90	.4	Vulcan, ...	Steam, ...	..	..	48,000	28,000	49,000	49
Rummel Coal Co.															
Rummel, ...	Drift, ...	Non-gas., .	Fan, ...	3.6	2.8	1.0	215	.3	Robinson, ..	Gasoline, ...	..	2	16,000	12,000	16,500	67
Lochrie Coal Co.															
Lochrie No. 1, ...	Drift, ...	Non-gas., .	Fan, ...	8.0	1.5	3.0	360	.7	Stine, ...	Electricity, .	..	3	43,000	28,000	43,500	79
Somerset and Cambria Coal Co.															
S. and C. No. 1, ...	Drift, ...	Non-gas., .	Fan, ...	7.0	2.0	3.0	225	.5	Stine, ...	Steam, ...	..	2	26,800	10,000	27,000	34
S. and C. No. 2, ...	Drift, ...	Non-gas., .	Furnace, ..	......	......	......	......	......	....	....	20	..	8,000	4,000	8,000	32
Climax Coal Co.															
Climax No. 1, ...	Drift, ...	Non-gas., .	Fan, ...	7.0	2.0	2.10	270	.5	Stine, ...	Gasoline, ...	..	..	15,000	9,000	15,600	25
Climax No. 2, ...	Drift, ...	Non-gas., .	Fan, ...	8.0	1.5	8.0	85	.1	Stine, ...	Steam, ...	..	..	13,000	10,000	13,000	22

TABLE I.—Continued

Names of Operators and Mines	Kind of opening	Gaseous or non-gaseous	Method of ventilation	Diameter of fan in feet and inches	Width of blades in feet and inches	Depth of blades in feet and inches	Number of revolutions per minute	Water gauge developed—in inches	Name of fan	Power used	Area of furnace bars in square feet	Number of splits of air currents	Number of cubic feet of air per minute entering the mine at inlet	Total number of cubic feet of air per minute circulating in all the splits	Number of cubic feet of air per minute passing out at outlet	Number of persons employed inside
Bolivar Coal and Coke Co. Lockport, ...	Drift, ...	Non-gas., .	Furnace, ..	......	......	......	......	......	....	....	30	..	8,800	5,800	8,800	38
Armerford Coal Mining Co. Armerford, ...	Drift, ...	Non-gas., .	Furnace, ..	......	......	......	......	......	....	....	30	..	16,000	12,000	16,500	39
A. J. Haws and Sons, Limited Haws Shaft, ...	Shaft, ...	Non-gas., .	Fan, ...	12.0	4.0	3.6	72	.2	Brazil, ...	Electricity, .	..	..	23,000	14,000	23,800	41
Joseph Soisson Fire Brick Co. Indiana No. 2, ...	Drift, ...	Non-gas., .	Furnace, ..	......	......	......	......	......	....	....	36	..	8,000	4,000	8,300	25
Highland Coal Co. Highland, ...	Slope, ...	Non-gas., .	Fan, ...	8.0	2.9	1.8	90	.4	Brazil, ...	Steam, ...	..	..	16,000	6,000	16,500	17
Loyal Hanna Coal and Coke Co. Loyal Hanna No. 6, ...	Drift, ...	Non-gas., .	Fan, ...	4.0	2.0	......	260	.1	Robinson, ..	Electricity, .	..	..	40,000	24,000	41,000	31
W. G. S. Robertson St. Clair, ...	Drift, ...	Non-gas., .	Fan, ...	1.5	.8	1.1	1,750	2.1	Sirocco, , ...	Electricity, .	..	..	10,000	6,000	10,400	19
C. O. Wilson C. O. Wilson, ...	Shaft, ...	Non-gas., .	Fan, ...	3.6	2.6	1.0	160	.3	Robinson, ..	Electricity, .	..	..	11,000	6,000	12,000	10

TABLE J.—Mines using coal cutting machines, power used, geological and local names of seams, thickest and thinnest seams where machines are used, and the approxiamite number of tons produced by machines

Names of Operators	Names of Mines	Kind of opening	Gaseous or non-gaseous	Number of mining machines used	Power used by machines	Geological and local names of seams	Average thickness in inches	Height of Seam in Inches		Approximate number of tons produced by machines
								Thickest	Thinnest	
Berwind-White Coal Mining Co., ..	Eureka No. 30, ...	Drift, ...	Non-gas., .	34	Electricity,......	B or Lower Kittanning,	48	54	42	146,080
	Eureka No. 31, ...			35	Compressed air,.	B or Lower Kittanning,	48	54	42	129,188
	Eureka No. 34, ...			2	Electricity,......	B or Lower Kittanning,	48	54	42	113,678
	Eureka No. 35, ...			11 35	Electricity,...... Compressed air,.	B or Lower Kittanning,	48	54	42	625,654
	Eureka No. 35, Upper,			6	Electricity,......	C or Upper Kittanning,	68	72	60	35,006
	Eureka No. 36, ...			11 46	Electricity,...... Compressed air,.	B or Lower Kittanning,	48	54	42	643,113
	Eureka No. 37, ...			51	Electricity,......	B or Lower Kittanning,	48	54	42	421,707
	Eureka No. 37, Upper,			21	Electricity,......	C or Upper Kittanning,	68	72	60	252,420
	Eureka No. 39, Upper,			54	Electricity,......	C or Upper Kittanning,	42	48	36	385,897
	Eureka No. 40, ...			72	Compressed air,.	B or Lower Kittanning,	48	54	42	685,644
	Eureka No. 41, ...			4	Electricity,......	B or Lower Kittanning,	48	54	42	26,495
	Eureka No. 42, ...			82	Electricity,......	B or Lower Kittanning.	48	54	42	376,884
Totals, ...	....	....	....	414	....	....	......	......	......	3,841,715

TABLE J.—Continued

Names of Operators	Names of Mines	Kind of opening	Gaseous or non-gaseous	Number of mining machines used	Power used by machines	Geological and local names of seams	Average thickness in inches	Height of Seam in Inches		Approximate number of tons produced by machines
								Thickest	Thinnest	
Valley Smokeless Coal Co., ...	Valley No. 1, ...	Drift, ...	Gaseous, ..	3	Electricity,......	C or Upper Kittanning,	63	66	60	69,477
Lackawanna Coal and Coke Co., ...	Lackawanna No. 4, ...	Shaft,.....	Gaseous, ..	55	Compressed air, Electricity,.....	B or Lower Kittanning,	46	48	44	305,600
Scalp Level Coal Mining Co., ...	Scalp Level No. 1, ...	Drift, ...	Non-gas., .	3	Electricity,......	C or Upper Kittanning,	52	55	48	49,200
Lacolle Coal Mining Co., ...	Lacolle No. 1, ...	Drift, ...	Non-gas., .	1	Electricity,......	E or Upper Freeport,	54	60	48	4,100
Pennsylvania Smokeless Coal Co.,..	Lenore, ...	Shaft,.....	Gaseous, ..	11	Compressed air,.	B or Lower Kittanning,	40	44	36	26,100
	Oneida, ...	Slope, ...	Non-gas., .	2	Compressed air,.	C or Upper Kittanning,	42	48	36	10,850
Totals, ...	....	....	....	13	....	....	......	......	......	36,950
Somerset and Cambria Coal Co., ...	S. and C. No. 2, ...	Drift, ...	Non-gas., .	5	Compressed air,.	C or Upper Kittanning,	43	56	29	6,537
Grand totals, ...	....	....	....	494	....	....	......	......	......	4,818,579

TABLE 1.—Operators, Location of Mines, Railroads, etc.

Names of Operators[a] and Mines	County	Name of General Superintendent	Post Office	Name of Superintendent	Post Office	Railroad to Mine
Berwind-White Coal Mining Co.						
Eureka Nos. 30, 31, 34, 35, 35 Upper, 36, 39 Upper, and 41,	Somerset,			J. D. Simpson,	Windber,	Pennsylvania
Eureka Nos. 37, 37 Upper, 40 and 42,	Cambria,					
Valley Smokeless Coal Co.						
Valley No. 1,	Cambria,	C. C. Dovey,	Johnstown,	Edwin Williams,	Johnstown,	B. and O. and Johnstown and Stony Creek
Valley No. 2,	Westmoreland,			Martin Narin,	Seward,	Pennsylvania
Valley No. 5,	Cambria,			J. A. Trumbull,	Johnstown,	B. and O. and Johnstown and Stony Creek
Lackawanna Coal and Coke Co.						
Lackawanna No. 4,	Indiana,	W. A. Luce, Assistant General Manager,	Pittsburgh,	H. J. Meehan,	Wehrum,	Pennsylvania and B. R. and P.
Shade Coal Mining Co.						
Hagevo.,	Somerset,	I. F. Overholt,	Mount Pleasant,	William Gahagen,	Hagevo,	Pennsylvania
Scalp Level Coal Mining Co.						
Scalp Level No. 1,	Somerset,	John Lochrie,	Windber,			Pennsylvania
Sunnyside Coal Co.						
Sunnyside Nos. 1 and 3,	Cambria,	Charles S. Ling,	Johnstown,	Griffith Powel,	Johnstown,	Johnstown and Stony Creek
Lacolle Coal Mining Co.						
Lacolle No. 1,	Westmoreland,	John McPherson,	Bolivar,	John McPherson,	Johnstown,	Pennsylvania
Smokeless Coal Co.						
Smokeless Nos. 1, 2 and 3,	Cambria,			Charles A. Owens,	Johnstown,	B. and O.
Tunnel Smokeless Coal Co.						
Tunnel,	Somerset,	C. C. Dovey,	Johnstown,	George Lougner,	Johnstown, R. F. D. No. 4,	B. and O.
Kiskiminitas Coal Co.						
Brush Valley,	Indiana,	F. M. Graff,	Blairsville,	Earnest Fletcher,	Saltsburg,	Pennsylvania
Conemaugh Valley Coal Mining Co.						
Morrellville,	Cambria,			D. S. Price,	Johnstown,	Pennsylvania

TABLE 1.—Continued

Names of Operators and Mines	County	Name of General Superintendent	Post Office	Name of Superintendent	Post Office	Railroad to Mine
W. A. Marshall and Co.						
Maple Ridge Nos. 2 and 3,	Somerset,	Cornelius Meagher,	Hollsopple,	Cornelius Meagher,	Hollsopple,	B. and O.
Pennsylvania Smokeless Coal Co.						
Lenore, Oneida,	Somerset,	Lloyd G. McCrum,	Somerset,	J. W. Fletcher,	Hollsopple,	B. and O.
Ninevah Coal and Coke Co.						
Valley No. 6,	Westmoreland,	C. C. Dovey,	Johnstown,	Martin Narin,	Seward,	Pennsylvania
Rummel Coal Co.						
Rummel,	Somerset,	John Lochrie,	Windber,			Pennsylvania
Lochrie Coal Co.						
Lochrie No. 1,	Somerset,	John Lochrie,	Windber,			Pennsylvania
Somerset and Cambria Coal Co.						
S. and C. No. 1, S. and C. No. 2,	Somerset,	J. V. Magginis,	Hollsopple,	P. J. Sullivan, William Bullock,	Hollsopple,	B. and O.
Climax Coal Co.						
Climax Nos. 1 and 2,	Indiana,	Charles W. Mills,	Philadelphia,	H. Hole,	Lockport,	Pennsylvania
Bolivar Coal and Coke Co.						
Lockport,	Westmoreland,	George H. Anderson,	Pittsburgh,	John McHall,	Bolivar,	Pennsylvania
Armerford Coal Mining Co.						
Armerford,	Indiana,			Angus L. Walker,	Dilltown,	Pennsylvania
A. J. Haws and Sons, Limited						
Haws Shaft,	Cambria,	James T. Thomas,	Johnstown,			Coal used by company at their brick works
Joseph Soisson Fire Brick Co.						
Indiana No. 2,	Indiana,	R. R. Soisson,	Bolivar,	D. D. Krouse,	Bolivar,	Pennsylvania
Highland Coal Co.						
Highland,	Cambria,	F. B. Sipe,	Johnstown,			Local trade

Loyal Hanna Coal and Coke Co. Loyal Hanna No. 6,	Somerset,			Joseph Patterson,	Onnalinda,	Pennsylvania
W. G. S. Robertson St. Clair,	Cambria,	W. G. S. Robertson,	Johnstown,	J. W. Robertson.	Johnstown,	Local trade
C. O. Wilson C. O. Wilson,	Cambria,	C. O. Wilson,	Johnstown,			B. and O.

TABLE 2.—Number of tons of coal mined and tons of coke produced, number of days worked, number of persons employed, number killed and injured, quantity of powder, dynamite and permissible explosives used, etc.

Names of Operators and Mines	County	Number of tons of coal shipped to market	Number of tons used at mines for steam and heat	Number of tons sold to local trade and used by employes	Number of tons used in manufacture of coke	Total production of coal in tons	Total production of coke in tons	Number of coke ovens	Number of days worked	Number of employes	Number of fatal accidents	Number of non-fatal accidents	Explosives			Number of horses and mules
													Number of pounds of powder used	Number of pounds of dynamite used	Number of pounds of permissible explosives used	
Berwind-White Coal Mining Co.																
Eureka No. 30, ...	Somerset, ...	145,036	994	....	....	146,030	....	......	301	138	....	....	18,817	2,710	....	......
Eureka No. 31, ...		128,110	1,078	....	....	129,188	....	......	304	114	....	1	16,630	2,426	....	......
Eureka No. 34, ...		113,678	....	....	....	113,678	....	......	304	70	....	....	14,850	2,140	....	......
Eureka No. 35, ...		612.520	13,134	....	....	625,654	....	......	319	672	2	3	81,063	11,558	....	......
Eureka No. 35, Upper,..		....	20,407	14,598	....	35,005	....	......	313	32	....	....	4,455	642	....	......
Eureka No. 36, ...		618,188	24.925	....	....	648,113	....	......	316	604	4	....	83,655	12,068	....	......
Eureka No. 37, ...	Cambria, ...	412,348	4,419	4,940	....	421.707	....	......	314	427	2	1	53,460	7,695	....	......
Eureka No. 37, Upper,..	Cambria, ...	251,142	1,278	....	....	252,420	....	......	314	196	1	1	32.175	4,707	....	......
Eureka No. 39, Upper,..	Somerset, ...	381.273	3,299	1,325	....	385,897	....	......	295	378	3	....	49,115	7,068	....	......
Eureka No. 40, ...	Cambria, ...	676,856	8,788	....	....	685,644	....	......	318	640	2	3	88.410	12,693	....	......
Eureka No. 41, ...	Somerset, ...	26,495	....	....	....	26,495	....	......	124	58	....	....	3,960	....	....	......
Eureka No. 42, ...	Cambria, ...	375,407	879	598	....	376,884	....	......	311	382	2	2	48,610	7,658	....	......
Totals, ...	....	3,741.053	79,201	21,461	....	3,841,715	....	......	......	3,711	16	11	495,200	71,360	....	......
Valley Smokeless Coal Co.																
Valley No. 1, ...	Cambria, ...	338,524	....	....	....	338,524	....	......	294	329	1	2	35,000	650	....	10
Valley No. 2, ...	Westmoreland, ..	69,275	2,799	1,451	....	73,525	....	......	236	109	....	1	11,980	2,445	....	12
Valley No. 5, ...	Cambria, ...	9,190	22	....	....	9,212	....	......	239	39	....	....	500	100	....	2
Totals, ...	....	411,989	2,821	1,451	....	416,261	....	......	......	477	1	3	47,480	3,195	....	24

Lackawanna Coal and Coke Co.																
Lackawanna No. 4, ...	Indiana, ...	315,285	24,522	1,415	....	341,222	....	......	288	425	1	3	....	....	53,650	2
Shade Coal Mining Co.																
Hagevo, ...	Somerset, ...	142,965	....	547	....	143,512	....	......	292	150	....	....	40,000	3,000	....	10
Scalp Level Coal Mining Co.																
Scalp Level No. 1, ...	Somerset, ...	140,000	....	....	....	140,000	....	......	296	116	....	....	56,000	1,500	....	4
Sunnyside Coal Co.																
Sunnyside No. 1, ...	Cambria, ...	102,603	50	4,541	....	107,194	....	......	295	133	3	1	24,000	1,400	....	25
Sunnyside No. 3, ...	Cambria, ...	30,000	....	....	....	30,000	....	......	283	41	1	1	....	....	....	4
Totals, ...	....	132,603	50	4,541	....	137,194	....	......	......	174	4	2	24,000	1,400	....	29
Lacolle Coal Mining Co.																
Lacolle No. 1, ...	Westmoreland, ..	128,771	900	90	....	129,761	....	......	310	108	2	....	38,875	....	1,400	5
Smokeless Coal Co.																
Smokeless No. 1, ...	Cambria, ...	77,878	....	16,698	....	94,576	....	......	292	82	1	1	18,880	250	500	4
Smokeless No. 2, ...		12,500	....	....	....	12,500	....	......	266	9	....	....	3,540	....	50	1
Smokeless No. 3, ...		5,787	....	718	....	6,505	....	......	70	29	....	....	1,180	100	150	2
Totals, ...	....	96,165	....	17,416	....	113,581	....	......	......	120	1	1	23,600	350	700	7
Tunnel Smokeless Coal Co.																
Tunnel, ...	Somerset, ...	111,854	1,143	....	....	112,997	....	......	266	145	....	2	....	....	14,255	7
Kiskiminitas Coal Co.																
Brush Valley, ...	Indiana, ...	93,820	2,500	....	....	96,320	....	......	288	116	....	....	....	....	19,000	4
Conemaugh Valley Coal Mining Co.																
Morrellville, ...	Cambria, ...	78,769	25	108	....	78,902	....	......	281	111	....	....	16,000	....	....	6
W. A. Marshall and Co.																
Maple Ridge No. 2, ...	Somerset, ...	59,422	820	310	....	60,552	....	......	247	78	....	1	12,315	1,800	....	5
Maple Ridge No. 3, ...	Somerset, ...	14,866	....	....	....	14,866	....	......	247	24	....	....	3,860	3,200	....	2
Totals, ...	....	74,288	820	310	....	75,418	....	......	......	102	....	1	16,175	5,000	....	7
Pennsylvania Smokeless Coal Co.																
Lenore, ...	Somerset, ...	30,591	....	....	....	30,591	....	......	261	76	....	....	18,000	400	....	9
Oneida, ...	Somerset, ...	31,758	5,475	....	....	37,233	....	......	277	55	....	1	18,500	675	....	7
Totals, ...	....	62,349	5,475	....	....	67,824	....	......	......	131	....	1	36,500	1,075	....	16
Ninevah Coal and Coke Co.																
Valley No. 6, ...	Westmoreland, ..	62,263	1,547	75	....	63,985	....	......	259	60	....	....	12,275	1,095	....	5

TABLE 2.—Continued

Names of Operators and Mines	County	Number of tons of coal shipped to market	Number of tons used at mines for steam and heat	Number of tons sold to local trade and used by employes	Number of tons used in manufacture of coke	Total production of coal in tons	Total production of coke in tons	Number of coke ovens	Number of days worked	Number of employes	Number of fatal accidents	Number of non-fatal accidents	Explosives			Number of horses and mules
													Number of pounds of powder used	Number of pounds of dynamite used	Number of pounds of permissible explosives used	
Rummel Coal Co.																
Rummel, ...	Somerset, ...	60,000	25	....	....	60,025	....	......	269	72	....	....	20,000	1,200	....	3
Lochrie Coal Co.																
Lochrie No. 1, ...	Somerset, ...	60,000	....	....	....	60,000	....	......	165	88	....	....	20,000	600	....	......
Somerset and Cambria Coal Co.																
S. and C. No. 1, ...	Somerset, ...	28,086	797	73	....	28,956	....	......	263	39	....	....	6,000	1,200	....	5
S. and C. No. 2, ...	Somerset, ...	6,537	....	....	....	6,537	....	......	165	32	....	....	1,400	1,300	....	2
Totals, ...	....	34,623	797	73	....	35,493	....	......	......	71	....	....	7,400	2,500	....	7
Climax Coal Co.																
Climax No. 1, ...	Indiana, ...	29,406	....	120	....	29,526	....	......	232	31	....	....	10,875	200	....	8
Climax No. 2, ...	Indiana, ...	1,488	20	....	....	1,508	....	......	25	25	....	....	350	....	....	1
Totals, ...	....	30,894	20	120	....	31,034	....	......	......	56	....	....	11,225	200	....	9
Bolivar Coal and Coke Co.																
Lockport, ...	Westmoreland, ..	15,087	100	60	7,000	22,247	4,664	53	270	62	1	....	6,925	50	....	9
Armerford Coal Mining Co.																
Armerford, ...	Indiana, ...	20,869	100	50	....	21,019	....	......	204	48	....	....	750	....	150	2

A. J. Haws and Sons, Limited Haws Shaft, ...	Cambria, ...	17,888	....	....	....	17,888	. . ...	......	311	49	....	....	2,300	1,800	....	7
Joseph Soisson Fire Brick Co. Indiana No. 2, ...	Indiana, ...	14,647	....	57	....	14,704	... ...	......	257	35	....	....	2,500	210	610	7
Highland Coal Co. Highland, ...	Cambria, ...	....	280	13,326	....	13,606	... ...	......	305	27	....	1	1,350	....	....	12
Loyal Hanna Coal and Coke Co. Loyal Hanna No. 6, ...	Somerset, ...	*9,966	437	400	....	10,803	... ..	......	183	52	....	....	3,000	....	....	3
W. G. S. Robertson St. Clair, ...	Cambria, ...	....	....	10,450	....	10,450	....	......	253	21	....	....	2,000	150	2,150	9
C. O. Wilson C. O. Wilson, ...	Cambria, ...	7,000	....	....	....	7,000	....	......	168	12	....	....	†	†	†	......
Grand totals, ...	....	5,863,248	120,763	71,950	7,000	6,062,961	4,664	53	......	6,534	26	25	883,605	94,685	91,915	194

*Stock at mines.
†No record at the mine.

TABLE 2—Part 2

Names of Operators	County	Number of Boilers					Locomotives				Number of steam engines of all classes	Total horse power	Number of pumps delivering water to surface	Capacity in gallons per minute	Quantity delivered to surface per minute—gallons	Number of electric dynamos	Number of air compressors
		Cylindrical	Horse power	Tubular	Horse power	Total horse power	Gasoline	Steam	Air	Electric							
Berwind-White Coal Mining Co.,	Cambria, Somerset,	......	......	26	8,300	8,300	......	......	......	78	12	13,410	6	13,000	8,975	21	6
Valley Smokeless Coal Co.,	Cambria, Westmoreland,	......	......	2	400	400	......	......	......	6	4	165	2	500	325	3	1
Lackawanna Coal and Coke Co.,	Indiana,	......	......	9	2,357	2,357	......	1	......	8	6	2,150	2	4,000	2,000	3	3
Shade Coal Mining Co.,	Somerset,	......	......	......	......	....	2	......	......	......	......	70	......	......	......	......	......
Scalp Level Coal Mining Co.,	Somerset,	......	......	......	......	*	......	......	......	2	......	......	1	50	10	......	......
Sunnyside Coal Co.,	Cambria,	......	......	......	......	*	......	......	......	1	......	......	......	......	......	1	......
Lacolle Coal Mining Co.,	Westmoreland,	......	......	2	300	300	......	......	......	1	1	250	1	250	250	1	......
Smokeless Coal Co.,	Cambria,	......	......	......	......	*	......	......	......	......	......	......	2	600	450	......	......
Tunnel Smokeless Coal Co.,	Somerset,	......	......	2	250	250	......	......	......	1	2	369	......	......	......	1	......
Kiskiminitas Coal Co.,	Indiana,	......	......	2	275	275	......	......	......	2	2	300	2	210	90	1	......
Conemaugh Valley Coal Mining Co.,	Cambria,	......	......	......	......	*	......	......	......	2	......	......	......	......	......	......	......
W. A. Marshall and Co.,	Somerset,	......	......	2	240	240	......	......	......	......	3	240	1	100	75	1	......
Pennsylvania Smokeless Coal Co.,	Somerset,	......	......	4	600	600	......	......	......	......	5	368	4	575	410	......	1
Ninevah Coal and Coke Co.,	Westmoreland,	......	......	2	250	250	......	......	......	......	2	150	3	150	75	......	......
Rummel Coal Co.,	Somerset,	......	......	1	20	20	......	......	......	......	1	15	......	......	......	......	......
Lochrie Coal Co.,	Somerset,	......	......	......	......	*	......	......	......	2	......	......	......	......	......	......	......
Somerset and Cambria Coal Co.,	Somerset,	......	......	1	100	100	......	......	......	......	2	80	3	225	125	......	1
Climax Coal Co.,	Indiana,	......	......	1	100	100	......	......	......	......	2	65	......	......	......	......	......
A. J. Haws and Sons, Limited,	Cambria,	......	......	......	......	....	......	......	......	......	1	50	2	240	138	......	......
Joseph Soisson Fire Brick Co.,	Indiana,	......	......	......	......	....	......	......	......	......	......	......	1	175	150	......	

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*Power furnished by electric company.

Highland Coal Co.,	Cambria,	......	......	1	60	60	......	......	......	......	2	40	1	188	188	......	......
Loyal Hanna Coal and Coke Co.,	Somerset,	......	......	1	80	80	......	......	......	1	1	50	2	100	50	1	......
C. O. Wilson,	Cambria,	......	......	......	......	*	......	......	......	......	......	......	1	100	25	......	......
Totals,		......	......	56	13,332	13,332	2	1	......	104	46	17,767	34	20,463	13,336	34	12

*Power furnished by electric company.

TABLE 3.—Part 2

Names of Operators	County	Average Number of Days Worked												
		January	February	March	April	May	June	July	August	September	October	November	December	Total
Berwind-White Coal Mining Co.,	Cambria, Somerset,	27	23	25	27	26	23	24	24	24	25	23	23	294
Valley Smokeless Coal Co.,	Westmoreland, Cambria,	18	21	23	20	22	22	23	25	25	23	19	15	256
Lackawanna Coal and Coke Co.,	Indiana,	27	24	25	26	25	24	25	25	26	25	20	16	288
Shade Coal Mining Co.,	Somerset,	25	24	23	25	28	25	24	25	25	26	24	23	292
Scalp Level Coal Mining Co.,	Somerset,	24	22	26	26	25	25	24	25	25	23	25	25	296
Sunnyside Coal Co.,	Cambria,	23	23	23	24	25	23	25	26	26	23	24	24	289
Lacolle Coal Mining Co.,	Westmoreland,	27	28	27	26	26	26	26	26	27	26	26	24	310
Smokeless Coal Co.,	Cambria,	15	14	12	15	17	15	15	16	17	24	25	24	209
Tunnel Smokeless Coal Co.,	Somerset,	25	20	24	21	24	21	22	24	22	23	20	20	266
Kiskiminitas Coal Co.,	Indiana,	23	24	24	25	23	25	23	25	24	24	23	25	288
Conemaugh Valley Coal Mining Co.,	Cambria,	27	24	24	23	21	24	24	24	26	26	19	19	281
W. A. Marshall and Co.,	Somerset,	21	16	21	19	22	19	23	22	22	21	21	20	247
Pennsylvania Smokeless Coal Co.,	Somerset,	22	18	24	23	18	23	22	24	25	24	24	22	269
Ninevah Coal and Coke Co.,	Westmoreland,	25	22	22	22	22	20	17	25	21	21	21	21	259
Rummel Coal Co.,	Somerset,	24	21	8	18	27	25	25	25	24	23	24	25	269
Lochrie Coal Co.,	Somerset,	......	......	......	......	......	20	24	25	25	24	23	24	165
Somerset and Cambria Coal Co.,	Somerset,	11	6	8	13	18	21	23	22	24	25	22	21	214
Climax Coal Co.,	Indiana,	11	11	10	9	2	7	8	10	11	12	12	25	128
Bolivar Coal and Coke Co.,	Westmoreland,	26	21	13	16	24	23	25	26	21	25	24	26	270
Armerford Coal Mining Co.,	Indiana,	13	24	21	7	12	21	2	12	20	24	22	26	204
A. J. Haws and Sons, Limited,	Cambria,	27	24	26	26	27	25	26	26	26	27	25	26	311
Joseph Soisson Fire Brick Co.,	Indiana,	......	4	26	26	26	26	25	26	24	25	25	24	257
Highland Coal Co.,	Cambria,	27	24	26	26	26	25	25	26	26	27	26	21	305
Loyal Hanna Coal and Coke Co.,	Somerset,	......	......	......	......	......	26	27	26	26	27	25	26	183
W. G. S. Robertson,	Cambria,	23	22	24	21	18	20	21	22	25	15	20	22	253
C. O. Wilson,	Cambria,	20	18	24	20	22	18	15	15	16	......	......	......	168

TABLE 4.—Fatal Accidents Inside and Outside of Mines

Date of accident		Name of Person	Nationality	Occupation	Age	Married or single	Number of widows	Number of orphans	Name of Mine	County	Nature and Cause of Accident in Brief
Jan.	1	John Selvis, ...	Hungarian, .	Miner, ...	48	M.	1	....	Eureka No. 36, .	Somerset, ...	Instantly killed on heading by coming in contact with an electric wire. While loading coal from the side of road the back of his head came in contact with the trolley wire.
	13	Charles F. Germroth,	German, ...	Laborer, ...	47	M.	1	1	Eureka No. 39, Upper,	Somerset, ...	Instantly killed by being caught under a large rock car when it tilted endwise. Outside.
	16	George Muir, ...	American, ..	Trackman, ..	53	W.	....	1	Lockport, ...	Westmoreland, .	Instantly killed by fall of top on heading while making preparation to secure it with timber.
	17	John Korvolshik, ...	Slavonian, ..	Miner, ...	50	M.	1	1	Eureka No. 36, ..	Somerset, ...	Instantly killed on heading by being caught by mine wagons while standing close to a shelter hole near his room.
	31	Andy Spasak, ...	Magyar, ...	Miner, ...	33	M.	1	1	Eureka No. 35, ..	Somerset, ...	Instantly killed by fall of slate while pushing a loaded wagon from his place.
Feb.	12	Anlexander Kowash, ..	Hungarian, .	Loader, ...	30	S.	....	....	Eureka No. 39, Upper,	Somerset, ...	Electrocuted by trolley wire directly above him on road.
	21	James Woods, ...	American, ..	Machine runner,	38	M.	1	4	Lackawanna No. 4,	Indiana, ...	Killed by being caught by revolving threadbar on heading and thrown against rib of place, crushing his skull.
March	5	Andy Rodac, ...	Hungarian, .	Miner, ...	40	M.	1	4	Eureka No. 40, ..	Cambria, ...	Instantly killed by fall of roof while loading a wagon in pillar workings.
April	8	John Hanish, ...	Slavonian, ..	Miner, ...	20	S.	....	....	Eureka No. 42, ..	Cambria, ...	Instantly killed by fall of rock while taking out heading stumps.
	10	Joseph Thomaselli, ...	Italian, ...	Miner, ...	25	M.	1	1	Eureka No. 39, ..	Somerset, ...	Fatally injured by being struck by mine cars while visiting an adjoining room. Having failed to throw the switch for the heading, the cars ran into the room.
May	14	Mike Dagish, ...	Slavonian, ..	Miner, ...	21	S.	....	....	Sunnyside No. 1,	Cambria, ...	Instantly killed by fall of roof from under which he had knocked six props. He had been cautioned not to take props out.
June	2	Alexander Surak, ...	Hungarian, .	Miner, ...	28	M.	1	1	Eureka No. 36, ..	Somerset, ...	Instantly killed by fall of coal while undermining it at face of room.

TABLE 4—Continued

Date of accident		Name of Person	Nationality	Occupation	Age	Married or single	Number of widows	Number of orphans	Name of Mine	County	Nature and Cause of Accident in Brief
July	14	Lewis Macedonic, ...	Italian, ...	Miner, ...	35	M.	1	6	Lacolle No. 1, ..	Westmoreland, .	Instantly killed by fall of coal while undermining it at face of room. He had failed to set sprags.
	25	George Chiskiski, ...	Polish, ...	Miner, ...	48	M.	1	2	Eureka No. 37, ..	Cambria, ...	Instantly killed while putting checks on his cars on heading. A trip of seven cars broke loose and ran into the cars he was checking.
Aug.	12	Thomas Peter, ...	Polish, ...	Miner, ...	36	M.	1	4	Eureka No. 37, ..	Cambria, ...	Fatally injured by fall of coal he failed to sprag while undermining at face of room.
	19	Joseph Bakell, ...	Italian, ...	Miner, ...	21	S.	....	....	Eureka No. 42, ..	Cambria, ...	Instantly killed by fall of coal and bone while undermining it at face of room. He failed to set sprags.
	25	Casper Yellomey, ...	Hungarian, .	Miner, ...	40	W.	....	....	Eureka No. 36, ..	Somerset, ...	Killed by fall of slate while working in pillars. He had been told to take the slate down, but failed to do so.
	29	Marsh McDermott, ...	American, ..	Miner, ...	35	M.	1	6	Lacolle No. 1, ..	Westmoreland, .	Instantly killed by fall of slate in the cross-cut. He knew the slate was dangerous, but wanted to load the car before taking it down.
Sept.	8	Stephen Hawie, ...	Slavonian, ..	Motorman, ..	29	M.	1	....	Eureka No. 35, ..	Somerset, ...	Killed by having his head crushed between the brake-wheel of his motor and the roof on a spur of track.
	12	Percy W. O'Rourk, ..	American, ..	Scraper, ...	23	S.	....	....	Eureka No. 37, Upper,	Cambria, ...	Killed by fall of roof while making a machine-cut in the coal on side of heading.
Oct.	7	John Fedorka, ...	Russian, ...	Miner, ...	29	M.	1	3	Valley No. 1, ..	Cambria, ...	Killed by coming in contact with electric wire on heading in a place far from where he worked and where he had no occasion to go for any known cause.
Nov.	6	Michael Stasisk, ...	Russian, ...	Miner, ...	21	S.	....	....	Sunnyside No. 3,	Cambria, ...	Fatally injured by fall of slate in room, which he had neglected to prop.
	8	John Hartack, ...	Polish, ...	Miner, ...	23	S.	....	....	Smokeless No. 1,	Cambria, ...	Instantly killed by fall of coal while undermining it at face of room.

Dec.	17	John Shunrick, ...	Slavonian, ..	Miner, ...	40	M.	1	5	Sunnyside No. 1	Cambria, ...	Instantly killed by fall of slate while taking out pillar. They neglected to put in props as instructed by the foreman.
		Steve Veres, ...	Hungarian, .	Miner, ...	35	M.	1	5			
	25	Thomas Haslett, ...	American, ..	Motorman, ..	18	S.	....	....	Eureka No. 40, ..	Cambria, ...	Fatally injured on heading by being squeezed between rib and motor while running along the side to get to the front end of motor.

TABLE 5.—Non-Fatal Accidents Inside and Outside of Mines

Date of accident		Name of Person	Nationality	Occupation	Age	Married or single	Name of Mine	County	Nature and Cause of Accident in Brief
Jan.	16	David Morgan,	American,	Assistant foreman,	20	S.	Eureka No. 35,	Somerset,	Leg injured by being run over by wagon on heading.
Feb.	4	Benjamin Dorney,	American,	Dumper,	18	S.	Valley No. 2,	Westmoreland,	Leg broken by being struck by wire rope slipping from pulley wheel. Outside.
		Aninias Lohr,	American,	Miner,	52	M.	Highland,	Cambria,	Leg broken by fall of coal he was undermining at face of room.
	5	Richard Morgan,	American,	Motorman,	39	S.	Eureka No. 42,	Cambria,	Leg broken by collision of two motors on the main heading.
	10	Tony Knell,	Polish,	Miner,	36	M.	Eureka No. 40,	Cambria,	Leg broken by being struck by mine wagon on the main heading near face.
	13	Frank Vayovare,,	Austrian,	Miner,	39	M.	Sunnyside No. 1,	Cambria,	Leg broken by fall of coal while undermining at face of room.
	20	Frank Anon,	Italian,	Miner,	23	S.	Eureka No. 35,	Somerset,	Leg broken by being run over by mine wagon that he had failed to secure with sprags in his working place.
March	5	Fred Horwat,	Horwat,	Brakeman,	21	S.	Tunnel,	Somerset,	Arm broken by coming in contact with a trolley-wire support while walking on loaded trip of wagons. Outside.
April	15	J. F. Repine,	American,	Miner,	45	M.	Eureka No. 37,	Cambria,	Face, neck and arms burned by the flame from blast of dynamite that he had exploded in a drill hole and neglected to tamp.
	18	Herman George,	American,	Motorman,	32	M.	Eureka No. 40,	Cambria,	Arm and leg bruised when his motor ran into some empty wagons that had become detached from the trip preceding him.
May	29	Clarence Sager,	American,	Trapper,	17	S.	Eureka No. 35,	Somerset,	Hand amputated when he fell under moving loaded trip.
June	2	Toney Mash,	Italian,	Miner,	26	S.	Lackawanna No. 4,	Indiana,	Leg broken by fall of slate at face of room while undermining coal.
	18	Charles Michael,	French,	Miner,	40	M.	Valley No. 1,	Cambria,	Back and leg injured by fall of slate in room. He neglected to prop it.
Aug.	4	Morris Roddy,	American,	Miner,	32	S.	Smokeless No. 1,	Cambria,	Leg broken and foot hurt by fall of coal at face of room while undermining.

Aug.	14	John Stoaik, ...	Russian, ...	Miner, ...	26	S.	Lackawanna No. 4, ...	Indiana, ...	Burned about head and face by explosion of powder.
Sept.	4	Andy Korgan, ...	Polish, ...	Miner, ...	26	M.	Lackawanna No. 4, ...	Indiana, ...	Leg broken in two places by being struck by wagons that he had neglected to sprag.
	12	Thomas Senclair, ...	American, ..	Machine runner, ..	33	M.	Eureka No. 37, Upper,	Cambria, ...	Foot and hand hurt by fall of roof while taking the machine away from a newly-made cut.
	23	Charles Frederick. ..	American, ..	Shot-firer, ...	24	S.	Tunnel No. 1, ...	Somerset, ...	Leg broken and back hurt by fall of bone.
		John Collins, ...	Irish, ...	Spragger, ...	24	S.	Valley No. 1, ...	Cambria, ...	Squeezed about the hips by motor while standing in a narrow place on heading.
	27	Andy Grenski, ...	Slavonian, ..	Miner, ...	25	S.	Eureka No. 40, ...	Cambria, ...	Leg broken by fall of roof while taking it down.
Oct.	23	John Bosak, ...	Slavonian, ..	Spragger, ...	23	M.	Eureka No. 42, ...	Cambria, ...	Leg broken and scalp injured by being struck by wagon.
Nov.	3	James Viedo, ...	Italian, ...	Miner, ...	19	S.	Oneida, ...	Somerset, ...	Arm broken and leg hurt while riding on loaded trip.
Dec.	1	Daniel Negro, ...	Italian, ...	Miner, ...	31	M.	Eureka No. 31, ...	Somerset, ...	Arm broken by fall of roof while loading wagon.
	11	Charles Comatuck, ...	Slavonian, ..	Miner, ...	35	M.	Maple Ridge No. 2, ..	Somerset, ...	Body burned by powder that exploded when a spark fell into it from a cigarette that he was smoking.
	29	Mike Bokovitch, ...	Austrian, ..	Miner, ...	27	M.	Sunnyside No. 3, ...	Cambria, ...	Arm and head injured by fall of top while mining coal at face of cross-cut.

CONDITION OF MINES

BERWIND-WHITE COAL MINING COMPANY

Eureka No. 30.—Ventilation, good, but drainage in some of the headings is poor, caused mostly by local dips.

Eureka No. 31.—Ventilation, good, but drainage is defective in some of the headings.

Eureka No. 34.—Ventilation and drainage very good. Mine is nearly exhausted.

Eureka No. 35.—While there is a sufficient quantity of air in circulation in all the splits in the mine, the ventilation is irregular and sometimes unsatisfactory, caused by the unusual number of doors that are so often neglected and left standing open between trips or while gathering a trip. This seriously interferes with the regular ventilation. Drainage and other conditions very good.

Eureka No. 35 Upper.—General conditions and ventilation and drainage are unusually good in every respect.

Eureka No. 36.—Ventilation in some of the splits is not properly cared for and is not conducted as close to the working faces as it should be, owing to the excessive use of canvas curtains in lieu of doors, and stoppings left open far back from the working faces. In other sections the ventilation, drainage and all other conditions are very good.

Eureka No. 37.—Ventilation very good, but drainage is defective in the No. 2 north section and the west drift headings, owing to very abrupt and numerous local dips, requiring more than thirty-two pumps to take care of the water. Other conditions very good.

Eureka No. 37, Upper.—Ventilation and drainage, good, except in part of the fourth right section.

Eureka No. 39, Upper.—Ventilation not satisfactory in No. 9 left section in the upper headings, but in the other portions it is very good. Drainage very good.

Eureka No. 40.—Ventilation in some of the splits not sufficient to comply with the mine law and not carried as close to the working faces as it should be; in other splits ventilation is excellent. Drainage good.

Eureka No. 41.—Ventilation and drainage very good.

Eureka No. 42.—Ventilation not satisfactory in several of the splits; drainage and other conditions good.

VALLEY SMOKELESS COAL COMPANY

Valley No. 1.—Ventilation in the dip workings not satisfactory, but in the other portions the ventilation and drainage are both very good. Arrangements are under way to furnish the dip workings with separate and sufficient ventilation for all purposes.

Valley No. 2.—Ventilation good, drainage poor, but improvements are being made.

Valley No. 5.—Ventilation and drainage good.

LACKAWANNA COAL AND COKE COMPANY

Lackawanna No. 4.—Ventilation, good; drainage defective in some of the headings.

SHADE COAL MINING COMPANY

Hagevo.—Ventilation and drainage very good in No. 1 drift, but the ventilation in the face of No. 3 drift is not satisfactory, the air being allowed to escape through defective stoppings. Drainage only fair in this section.

SCALP LEVEL COAL MINING COMPANY

Scalp Level No. 1.—Ventilation, very good; drainage, good, except in No. 3 right heading.

SUNNYSIDE COAL COMPANY

Sunnyside No. 1.—Ventilation, good; drainage, defective on the left side headings.

Sunnyside No. 3.—Ventilation, good; drainage on the main heading, defective.

LACOLLE COAL MINING COMPANY

Lacolle No. 1.—Ventilation, drainage and conditions in every particular very good.

SMOKELESS COAL COMPANY

Smokeless No. 1.—Ventilation, very good, but the drainage is defective in parts.

Smokeless No. 2.—Did not come under the law.

Smokeless No. 3.—Ventilation, drainage and general conditions, very good.

TUNNEL SMOKELESS COAL COMPANY

Tunnel.—Ventilation, drainage and general conditions, very good.

KISKIMINITAS COAL COMPANY

Brush Valley.—Ventilation, drainage and general conditions, very good.

CONEMAUGH VALLEY COAL MINING COMPANY

Morrellville.—Ventilation, very good; drainage, good, except in the lower drift.

W. A. MARSHALL AND COMPANY

Maple Ridge No. 2.—Ventilation, very good; drainage, defective in Nos. 2 and 3 left headings.

Maple Ridge No. 3.—Ventilation, drainage and general conditions very good.

PENNSYLVANIA SMOKELESS COAL COMPANY

Lenore.—Ventilation, very good; drainage and conditions along the sides of the headings, not satisfactory.

Oneida.—Ventilation, good; drainage, only fair.

NINEVAH COAL AND COKE COMPANY

Valley No. 6.—Ventilation and drainage, good, except in the third left heading, due to poorly constructed stoppings and lack of provision for draining the local dips.

RUMMEL COAL COMPANY

Rummel.—Ventilation, good; drainage and other conditions, satisfactory.

LOCHRIE COAL COMPANY

Lochrie No. 1.—Ventilation, drainage and general conditions, very good.

SOMERSET AND CAMBRIA COAL COMPANY

S. and C. No.. 1.—Ventilation and drainage, unsatisfactory, but will be given immediate attention and made to conform with the requirements of the law.

S. and C. No. 2.—Ventilation and drainage, good

CLIMAX COAL COMPANY

Climax No. 1.—Ventilation and drainage, good; general conditions, not satisfactory.

Climax No. 2.—In good condition.

BOLIVAR COAL AND COKE COMPANY

Lockport.—Ventilation, drainage and general conditions, very good.

ARMERFORD COAL MINING COMPANY

Armerford.—Ventilation and drainage, fair; general conditions, not satisfactory.

A. J. HAWS AND SONS, LIMITED

Haws Shaft.—Ventilation, drainage and general conditions, very good.

JOSEPH SOISSON FIRE BRICK COMPANY

Indiana No. 2.—Ventilation very unsatisfactory and not sufficient to comply with the requirements of the law. I requested that the men be withdrawn until the law is complied with. Drainage, fair.

HIGHLAND COAL COMPANY

Highland.—In very good condition in every respect.

LOYAL HANNA COAL AND COKE COMPANY

Loyal Hanna No. 6.—Ventilation, drainage and general conditions, very good.

W. G. S. ROBERTSON

St. Clair.—Ventilation and drainage have been very much improved during the year and general conditions are reasonably good.

C. O. WILSON

C. O. Wilson.—Ventilation, drainage and general conditions, good.

IMPROVEMENTS

LACKAWANNA COAL AND COKE COMPANY

Lackawanna No. 4.—An additional shaft, 135 feet deep, was sunk close to the face of the main south heading and fitted with a very easy and convenient stairway, making a safe means of exit for the workmen in that section of the mine. Boilers were added to the already large battery.

SHADE COAL MINING COMPANY

Hagevo.—A new Robinson high-speed fan was installed in place of the furnace; also an additional gasoline locomotive for outside use.

SCALP LEVEL COAL MINING COMPANY

Scalp Level No. 1.—An electric haulage system was installed and the small fan, driven by a gasoline motor, was replaced by a large Robinson high-speed electrically-driven fan.

SUNNYSIDE COAL COMPANY

Sunnyside No. 1.—An electric haulage system was installed and all the necessary improvements made, such as the erection of brick buildings for motors and transformers, the whole giving the mine the appearance of a modern operation.

LACOLLE COAL MINING COMPANY

Lacolle No. 1.—A new 8-foot Stine fan was installed and the mine equipped with modern electric haulage.

SMOKELESS COAL COMPANY

Smokeless No. 3.—A new and commodious coaling tipple was erected and the mine arrangements changed so that a large output can be handled at a minimum cost.

TUNNEL SMOKELESS COAL COMPANY

Tunnel.—A new shaft connecting with the manway and fitted with stairway as a means of exit, was put down and the mine is now in strict compliance with the law.

W. A. MARSHALL AND COMPANY

Maple Ridge No. 3.—A large amount of bottom grading was done and the rope haulage system extended close to the face of the mine.

RUMMEL COAL COMPANY

Rummel.—A complete tail rope haulage system was installed and is very satisfactory.

PROSECUTIONS FOR VIOLATION OF THE MINING LAWS

June 23.—Frank Tuto, miner, Eureka mine No. 37, Berwind-White Coal Mining Company. Charge: Failure to take lamp off his head while making up and filling a cartridge of powder. He pleaded guilty and was given a severe reprimand and released upon paying all the cost in the case and promising that he would obey the law in future.

July 31.—Peter Dunno, Michael Chernego and George Wasko, miners, Eureka mine No. 42, Berwind-White Coal Mining Company. Charge: Failure to set sprags under the coal, while undermining, to secure it from falling. They all entered a plea of guilty and were sentenced to pay the costs.

September 2.—Angus Walker, superintendent, Armerford mine, Armerford Coal Mining Company. Charge: Having in his employ in the mine a boy under the age of sixteen years. He pleaded guilty and paid fine of $10 and costs.

September 2.—George Stiles, miner, Armerford mine, Armerford Coal Mining Company. Charge: Failure to remove lamp from his cap while handling powder. He pleaded guilty and was fined $25 and costs.

September 24.—William Long, miner, Lacolle No. 1 mine, Lacolle Coal Mining Company. Charge: Neglect to properly timber working place and keep it in safe condition during working hours, resulting in the death of Marsh McDermott. He pleaded guilty and was sentenced to pay a fine of $25 and costs.

October 6.—Cornelius Meagher, superintendent, Maple Ridge Nos. 2 and 3 mines, W. A. Marshall and Company. Charge: Having in his employ outside of the mine a boy under sixteen years of age and failing to have a certificate showing the age of said boy. Pleaded guilty and was fined $25 and costs.

October 6.—Charles Edos, miner, Eureka No. 35 mine, Berwind-White Coal Mining Company. Charge: Failure to set sprags while undermining coal to secure it from falling. Pleaded guilty and on account of his short experience in the mines, upon payment of costs, $28, he was discharged.

October 6.—Michael Honie, miner, Eureka No. 35 mine, Berwind-White Coal Mining Company. Charge: Failure to set sprags while undermining coal to secure it from falling. He pleaded guilty and was fined $30 and given five days in jail.

October 6.—Adam Povoski, George Bomby, Michael Babish and John Ora, miners, Eureka No. 37 mine, Berwind-White Coal Mining Company. Charge: Failure to mine their coal properly before blasting. They all plead guilty and upon payment of costs, $50, were discharged.

December 31.—Alex. Rube, miner, Lackawanna No. 4 mine, Lackawanna Coal and Coke Company. Charge: Failure to tamp the full length of the hole and using short fuse. Pleaded guilty and was fined $100 and costs and sentenced to 30 days in jail.

December 31.—Joseph Warmus, miner, Lackawanna No. 4 mine, Lackawanna Coal and Coke Company. Charge: Failure to properly tamp the hole the full length and using short fuse. Pleaded guilty and was fined $100 and costs and sentenced to 30 days in jail.

December 31.—Lewis Busick, miner, Lackawanna No. 4 mine, Lackawanna Coal and Coke Company. Charge: Failure to properly tamp the full length of the drill hole and using short fuse. Warrant issued, but defendant so far has avoided arrest.

MINE FOREMEN'S, ASSISTANT MINE FOREMEN'S AND FIRE BOSSES' EXAMINATIONS

The annual examination of applicants for certificates of qualification as mine foremen, assistant mine foremen and fire bosses was held in the Jr. O. U. A. M. Hall May 6, 7 and 8. The Board of Examiners was composed of Nicholas Evans, Inspector; John Harrison, Superintendent, and Samuel W. Goldspink, Miner. There were 30 applicants for certificates of qualification as mine foremen and 15 applicants for certificates of qualification as fire bosses. The following persons passed a satisfactory examination and were granted certificates:

MINE FOREMEN

First Grade

John F. Tobin, Hollsopple; James Stephenson, Jerome; John Morgan, Johnstown; David Harvey, Dilltown.

Second Grade

David A. Lehman, Henry E. Good, Windber; Mathew Sherwin, Jr., Scalp Level; Patrick J. Hamill, Jerome; Frank Wentz, Johnstown; Joseph Hotter, Wehrum.

FIRE BOSSES

Joseph Racosky, John E. Lowery, Gordon Mathias, Samuel Hartland, Toner Yoder, Jerome; William H. Abrams, Windber; James Moors, Johnstown; Albert Phillips, Cairnbrook.

TWENTY-FIFTH DISTRICT

INDIANA COUNTY

Indiana, Pa., February 21, 1914.

Hon. James E. Roderick, Chief of Department of Mines:

Sir: In compliance with the Act of Assembly, approved June 9, 1911, I herewith transmit my annual report of the Twenty-fifth Bituminous District for the year ending December 31, 1913.

The headquarters of this district were changed from Punxsutawney to Indiana, September 1, 1913.

The report contains the usual statistical information, a brief description of the condition of mines, the most important improvements made during the year and the report of the annual examination of applicants for certificates of qualification as mine foremen, assistant mine foremen and fire bosses.

Respectfully submitted,

THOMAS S. LOWTHER,
Inspector.

SUMMARY OF STATISTICS

Number of mines,	56
Number of mines in operation,	53
Number of tons of coal shipped to market,	5,949,351
Number of tons used at mines for steam and heat,	244,765
Number of tons sold to local trade and used by employes,	18,113
Number of tons used in the manufacture of coke,	210,340
Number of tons of coal produced,	6,422,569
Number of tons of coke produced,	121,231
Number of coke ovens,	780
Number of coke ovens in operation,	480
Number of tons of coal produced by pick mining,	1,654,418
Number of tons produced by compressed air machines,	1,918,826
Number of tons produced by electrical machines,	2,849,325
Number of persons employed inside of mines,	6,191
Number of persons employed outside, including coke workers,	1,310
Number of persons employed at manufacture of coke,	115
Number of fatal accidents inside of mines,	28
Number of fatal accidents outside,	2
Number of non-fatal accidents inside of mines,	56
Number of non-fatal accidents outside,	8
Number of tons of coal produced per fatal accident inside,	229,377
Number of tons produced per fatal accident outside,	3,211,285
Number of tons produced per fatal accident inside and outside,	214,086
Number of persons employed per fatal accident inside,	221
Number of persons employed per fatal accident outside,	655
Number of persons employed per fatal accident inside and outside,	250
Number of persons employed per non-fatal accident inside,	111
Number of persons employed per non-fatal accident outside,	164
Number of persons employed per non-fatal accident inside and outside,	117
Number of wives made widows,	14
Number of children made orphans,	25
Number of steam locomotives used inside of mines,	....
Number of steam locomotives used outside,	1
Number of compressed air locomotives used inside,	....
Number of compressed air locomotives used outside,	....
Number of electric motors used inside,	131
Number of electric motors used outside,	14
Number of gasoline locomotives used inside,	....
Number of fans in use,	41
Number of furnaces in use,	3
Number of gaseous mines in operation,	12
Number of non-gaseous mines in operation,	41
Number of new mines opened,	11
Number of old mines abandoned,	....

TABLE A

PRODUCTION OF COAL

Names of Operators	Tons
Pittsburgh Gas Coal Company,	1,697,815
Jefferson and Clearfield Coal and Iron Company,	1,385,519
Rochester and Pittsburgh Coal and Iron Company,	1,017,519
Penn-Mary Coal Company,	673,511
Russell Coal Company,	425,212
Graceton Coke Company,	222,407
Pioneer Coal Company,	199,432
Clearfield Bituminous Coal Corporation,	188,219
Greenwich Coal and Coke Company,	183,536
Townsend Coal Company,	101,253
Graff Coal Company,	82,237
Coal Run Mining Company,	66,352
Wharton Coal and Coke Company,	57,488
Bells Mill Coal Company,	41,067
Robert Smith Coal Company,	28,693
Brush Creek Coal Mining Company,	26,451
Tide Coal Mining Company,	9,871
Clymer Brick and Fire Clay Company,	9,483
Hines Coal Company,	4,120
Auld Run Coal Company,	2,384
Total,	6,422,569

Production by Counties

Indiana,	6,422,569

TABLE B.—Fatal and non-fatal accidents inside and outside of mines; number of tons of coal produced per accident; number of persons employed; number employed per accident

Names of Operators	Fatal Accidents			Non-Fatal Accidents			Tons of coal produced per fatal accident inside	Tons of coal produced per non-fatal accident inside	Number of employes inside	Number of employes outside	Total number of employes	Number of employes inside per fatal accident	Number of employes outside per fatal accident	Number of employes inside per non-fatal accident	Number of employes outside per non-fatal accident
	Inside	Outside	Total	Inside	Outside	Total									
Pittsburgh Gas Coal Co.,	5	1	6	14	......	14	339,563	121,273	1,326	380	1,706	265	380	95	....
Jefferson and Clearfield Coal and Iron Co.,	9	......	9	15	3	18	153,947	92,368	1,442	325	1,767	160	....	96	108
Rochester and Pittsburgh Coal and Iron Co.,	6	1	7	8	1	9	169,587	127,190	849	152	1,001	141	152	106	152
Penn-Mary Coal Co.,	4	......	4	9	2	11	168,378	74,835	618	72	690	155	....	69	36
Russell Coal Co.,	......	......	......	1	......	1	....	425,212	466	58	524	....	....	466	....
Graceton Coke Co.,	1	......	1	1	1	2	222,407	222,407	173	132	305	178	....	173	132
Pioneer Coal Co.,	......	......	......	1	1	2	....	199,432	170	17	187	....	....	170	17
Clearfield Bituminous Coal Corporation,	......	......	......	2	......	2	....	94,110	194	25	219	....	....	97	....
Greenwich Coal and Coke Co.,	1	......	1	2	......	2	183,536	91,768	205	28	233	205	....	103	....
Townsend Coal Co.,	......	......	......	1	......	1	....	101,253	85	9	94	....	....	85	....
Coal Run Mining Co.,	1	......	1	......	......	......	66,352	....	75	9	84	75	....	....	....
Wharton Coal and Coke Co.,	1	......	1	2	......	2	57,488	28,744	52	31	83	52	....	26	....
Miscellaneous Companies,	......	......	......	......	......	......	....	....	536	72	608	....	....	....	....
Totals and averages for district,	28	2	30	56	8	64	229,377	114,659	6,191	1,310	7,501	221	655	111	164

TABLE C.—Classification of Fatal Accidents Inside and Outside of Mines

	Months													
	January	February	March	April	May	June	July	August	September	October	November	December	Totals	Percentages
Causes of Accidents Inside														
Falls of coal, ...	....	1	1	....	....	....	....	....	1	....	....	....	3	10.72
Falls of slate, ...	2	1	....	....	1	....	6	1	2	1	....	....	14	50.00
Falls of roof, ...	....	1	....	1	....	2	....	....	....	....	....	....	4	14.28
Mine cars, ...	....	....	1	....	....	....	1	....	1	1	....	....	4	14.29
Shaft cage, ...	....	....	....	....	1	....	....	....	....	....	....	....	1	3.57
Electricity, ...	....	....	....	....	....	1	....	1	....	....	....	....	2	7.14
Totals, ...	2	3	2	1	2	3	7	2	4	2	....	....	28	100.00
Causes of Accidents Outside														
Cars, ...	....	....	....	....	....	....	....	1	....	....	....	....	1	50.00
Machinery, ...	....	....	....	....	....	....	1	....	....	....	....	....	1	50.00
Totals, ...	....	....	....	....	....	....	1	1	....	....	....	....	2	100.00
Grand totals inside and outside, ...	2	3	2	1	2	3	8	3	4	2	....	....	30	......

TABLE D.—Classification of Non-Fatal Accidents Inside and Outside of Mines

	Months													
	January	February	March	April	May	June	July	August	September	October	November	December	Totals	Percentages
Causes of Accidents Inside														
Falls of coal, ...	1	....	....	1	4	....	2	2	1	....	1	1	13	23.21
Falls of slate, ...	1	2	....	2	1	1	1	1	....	3	....	....	12	21.43
Falls of roof, ...	2	2	....	1	2	....	1	....	....	....	....	....	8	14.29
Mine cars, ...	1	2	2	1	1	1	....	3	1	2	....	2	16	28.57
Explosions of powder and dynamite, ...	....	....	....	1	....	....	....	....	....	....	....	....	1	1.79
Blasts, premature and otherwise, ...	....	....	2	....	....	....	....	....	....	....	1	....	3	5.35
Machinery, ...	....	....	....	....	....	....	....	....	1	1	....	....	2	3.57
Electricity, ...	....	....	....	....	....	....	....	....	1	....	....	....	1	1.79
Totals, ...	5	6	4	6	8	2	4	6	4	6	2	3	56	100.00
Causes of Accidents Outside														
Cars, ...	1	....	1	....	....	....	2	....	....	....	....	....	4	50.00
Machinery, ...	1	....	....	....	....	1	....	....	2	....	....	....	4	50.00
Totals, ...	2	....	1	....	....	1	2	....	2	....	....	....	8	100.00
Grand totals inside and outside, ...	7	6	5	6	8	3	6	6	6	6	2	3	64	......

TABLE E.—Occupations of Persons Killed or Fatally Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
Inside													
Miners,	2	3	1	1	1	2	5	2	3	1	....	....	21
Machine loaders,	....	....	....	....	....	1	....	....	....	1	....	....	2
Spraggers,	....	....	1	....	....	....	....	....	1	....	....	....	2
Company men,	....	....	....	....	....	....	1	....	....	....	....	....	1
Motormen,	....	....	....	....	....	....	1	....	....	....	....	....	1
Cagers,	....	....	....	....	1	....	....	....	....	....	....	....	1
Totals,	2	3	2	1	2	3	7	2	4	2	....	....	28
Outside													
Spraggers,	....	....	....	....	....	....	....	1	....	....	....	....	1
Slate pickers,	....	....	....	....	....	....	1	....	....	....	....	....	1
Totals,	....	....	....	....	....	....	1	1	....	....	....	....	2
Grand totals inside and outside,	2	3	2	1	2	3	8	3	4	2	....	...	30

TABLE F.—Occupations of Persons Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
Inside													
Miners,	5	4	3	6	7	2	3	4	3	5	2	1	45
Machine runners,	....	....	....	....	....	....	....	....	....	....	....	1	1
Machine loaders,	....	....	....	....	....	....	....	....	1	....	....	....	1
Motormen,	....	1	....	....	1	....	....	....	....	....	....	....	2
Company men,	....	1	....	....	....	....	1	1	....	1	....	....	4
Spraggers,	....	....	1	....	....	....	....	1	....	....	....	1	3
Totals,	5	6	4	6	8	2	4	6	4	6	2	3	56
Outside													
Blacksmiths and carpenters,	....	....	....	....	....	....	....	....	1	....	....	....	1
Engineers and firemen,	....	....	....	....	....	1	....	....	1	....	....	....	2
Rollermen,	....	....	....	....	....	....	1	....	....	....	....	....	2
Laborers,	2	....	1	....	....	....	1	....	....	....	....	....	4
Totals,	2	....	1	....	....	1	2	....	2	....	....	....	8
Grand totals inside and outside,	7	6	5	6	8	3	6	6	6	6	2	3	64

TABLE G.—Nationality of Persons Killed or Fatally Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
American,	1	....	....	....	1	....	....	....	....	....	....	....	2
English,	....	....	....	....	....	....	1	....	....	....	....	....	1
Polish,	....	....	....	....	....	1	2	1	....	....	....	....	4
Hungarian,	....	1	1	1	....	....	1	....	....	....	....	....	4
Italian,	1	....	1	....	1	1	4	1	4	1	....	....	14
Slavonian,	....	....	....	....	....	1	....	....	....	....	....	....	1
Lithuanian,	....	1	....	....	....	....	....	....	....	....	....	....	1
Russian,	....	1	....	....	....	....	....	....	....	1	....	....	2
Horwat,	....	....	....	....	....	....	....	1	....	....	....	....	1
Totals,	2	3	2	1	2	3	8	3	4	2	....	....	30

TABLE H.—Nationality of Persons Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
American,	....	....	2	1	....	1	1	1	2	....	....	....	8
Scotch,	....	....	....	....	....	1	....	....	....	....	....	....	1
Irish,	....	....	....	....	....	....	....	....	....	1	....	....	1
Polish,	2	1	....	....	....	....	3	....	1	....	....	1	8
Hungarian,	....	....	....	1	....	....	....	1	....	....	....	....	2
Italian,	3	4	2	1	4	....	2	2	1	4	2	2	27
Slavonian,	1	....	1	1	1	1	....	1	2	1	....	....	9
Lithuanian,	....	....	....	....	1	....	....	....	....	....	....	....	1
Austrian,	....	....	....	....	2	....	....	....	....	....	....	....	2
Russian,	....	....	....	....	....	....	....	1	....	....	....	....	1
Swedish,	....	1	....	....	....	....	....	....	....	....	....	....	1
Granish,	....	....	....	2	....	....	....	....	....	....	....	....	2
Horwat,	1	....	....	....	....	....	....	....	....	....	....	....	1
Totals,	7	6	5	6	8	3	6	6	6	6	2	3	64

TABLE I.—Operators and mines, kind of openings, type and size of fans, size of furnaces, volume of air produced by fan or furnace per minute, number of splits of air currents and number of persons employed inside

Names of Operators and Mines	Kind of opening	Gaseous or non-gaseous	Method of ventilation	Diameter of fan in feet and inches	Width of blades in feet and inches	Depth of blades in feet and inches	Number of revolutions per minute	Water gauge developed—in inches	Name of fan	Power used	Area of furnace bars in square feet	Number of splits of air currents	Number of cubic feet of air per minute entering the mine at inlet	Total number of cubic feet of air per minute circulating in all the splits	Number of cubic feet of air per minute passing out at outlet	Number of persons employed inside
Pittsburgh Gas Coal Co.																
Iselin No. 1, ...	Drift, ...	Non-gas., .	Fan, ...	16.0	6.0	7.5	126	2.6	Capell, ...	Steam, ...	..	6	125,000	50,100	180,000	268
Iselin No. 2, ...			Fan, ...	12.5	5.0	6.0	126	2.7	Capell, ..	Electricity, .	..	5	75,480	40,700	82,000	277
Iselin No. 3, ...			Fan, ...	12.5	5.0	6.0	92	1.2	Capell, ...	Steam, ...	..	6	110,500	66,200	118,200	333
Iselin No. 4, ...			Fan, ...	16.0	8.0	3.0	55	.5	Capell, ...	Steam, ...	..	5	87,500	28,350	93,000	227
Iselin No. 5, ...			Natural,	......	......	......	......	......	....	....	..	1	7,800	4,000	8,500	43
Fritz No. 2, ...			Fan, ...	12.0	3.66	3.33	95	.6	Brazil, ...	Steam, ...	..	2	45,000	24,750	48,000	178
Jefferson and Clearfield Coal and Iron Co.																
Ernest No. 1, ...	Drift, ...	Gaseous, ..	Fan, .	18.0	3.0	7.75	88	1.8	Capell, ...	Steam, ...	..	2	87,750	48,500	95,390	154
Ernest No. 2, ...	Drift, ...	Gaseous, ..		22.0	3.0	11.00	80	3.2	Clifford, ..	Steam, ...	..	7	141,000	67,250	153,000	284
Ernest No. 3, ...	Drift, ...	Gaseous, ..		20.0	3.0	6.66	84	2.2	Clifford, ...	Electricity, .	..	3	97,600	46,500	106,000	146
Ernest No. 4, ...	Shaft, ...	Gaseous, ..		16.0	3.0	7.75	86	1.1	Robinson, .	Electricity, .	..	3	91,000	53,100	96,000	240
Cummings Shaft, ...	Shaft, ...	Gaseous, ..		8.0	1.0	3.5	120	.3	Clark, ...	Steam, ...	..	1	9,540	6,000	10,100	50
Jacksonville No. 1, ...	Drift, ...	Gaseous, ..		20.0	3.0	7.0	88	1.8	Capell, ...	Electricity		5	90,000	50,500	95,000	188
Jacksonville No. 2, ...	Drift, ...	Non-gas., .		18.0	2.5	8.5	80	1.3	Capell, ...			3	50,000	37,000	52,000	126
Jacksonville No. 3, ...	Drift, ...	Non-gas., .		4.4	14.0	4.0	110	.6	Sturtevant,			3	29,500	18,000	30,700	127
Jacksonville No. 4, ...	Drift, ...	Non-gas., .		5.25	2.5	3.5	115	.8	Robinson, .			3	30,000	20,000	31,200	156
Rochester and Pittsburgh Coal and Iron Co.																
Lucerne No. 1, ...	Drift, ...	Gaseous, ..	Fan, ...	20.0	7.5	8.0	90	2.2	Clifford, ...	Electricity, .	..	5	92,400	49,090	94,000	372
Lucerne No. 2, ...	Drift, ...	Gaseous, ..	*	......	......	......	......	......	....	....	..	3	57,200	33,400	59,000	239
Lucerne No. 3, ...	Shaft, ...	Gaseous, ..	*	......	......	......	......	......	....	....	..	4	101,500	56,720	104,000	238

*Ventilated by fan at No. 1 mine.

Penn-Mary Coal Co.																
Penn-Mary No. 1, ...	Drift, ...	Non-gas., .	Fan, ...	16.0	6.5	4.66	105	1.6	Lepley, ...	Steam, ...	..	5	85,500	55,200	91,700	176
Penn-Mary No. 2, ...	Drift, ...			12.0	5.0	4.5	160	3.0	Stine, ...	Electricity, .		3	88,000	60,000	91,500	148
Penn-Mary No. 3, ...	Slope, ..			7.0	1.5	3.0	325	.9	Stine, ...			4	54,600	32,700	57,000	157
Penn-Mary No. 5, ...	Drift, ...			8.0	1.6	3.0	205	.4	Stine, ...			4	29,200	16,300	36,200	23
Penn-Mary No. 7, ...	Drift, ...			7.0	1.5	3.0	285	.4	Stine, ...			7	73,000	46,000	78,600	88
Penn-Mary No. 8, ...	Drift, ...			8.0	1.6	3.0	200	.3	Stine, ...			2	33,120	21,260	33,750	26
Russell Coal Co.																
Victor No. 24, ...	Slope, ..	Non-gas., .	Fan, ...	20.0	6.0	6.0	90	2.0	Pollock, ...	Steam, ...	..	4	36,300	20,800	37,600	233
Victor No. 25, ...	Drift, ...		Fan, ...	16.0	4.6	5.0	120	1.75	Pollock, ...	Electricity, .	..	4	25,900	11,220	27,000	96
Victor No. 26, ...	Drift, ...		Furnace,	......	......	......	......	......	....	....	40	1	4,000	2,400	4,300	10
Victor No. 29, ...	Slope, ..		Fan, ...	20.0	6.0	6.0	80	1.75	Pollock, ...	Steam, ...	..	3	50,500	29,680	52,000	127
Graceton Coke Co.																
Graceton No. 2, ...	Drift, ...	Non-gas., .	Fan, ...	7.0	2.0	2.0	150	.4	Stine, ...	Compressed air	..	1	15,700	9,520	16,300	65
Graceton No. 3, ...	Drift, ...	Gaseous, ..	Fan, ...	14.0	7.75	5.66	120	1.6	Robinson, .	Steam, ...	..	3	47,400	36,600	48,600	108
Pioneer Coal Co.																
Empire M, ...	Drift, ...	Non-gas., .	Fan, ...	8.0	2.0	3.3	212	.7	Stine, ...	Steam, ...	..	4	44,800	20,600	47,000	85
Empire R, ...				8.0	2.0	3.3	320	.3	Stine, ...	Electricity, .	..	2	43,000	17,900	44,200	85
Clearfield Bituminous Coal Corporation																
Sample Run, ...	Drift, ...	Non-gas., .	Fan, ...	10.0	2.0	3.4	300	1.3	Stine, ...	Steam, ...	..	5	50,450	29,580	53,000	194
Greenwich Coal and Coke Co.																
Greenwich No. 5, ...	Drift, ...	Non-gas., .	Fan, ...	12.0	3.66	3.5	95	.75	Brazil, ...	Steam, ...	..	2	35,000	15,400	36,200	88
Greenwich No. 8, ...	Slope, ...	Gaseous, ..	Fan, ...	13.0	7.0	6.0	75	1.75	Capell, ...	Steam, ...	..	4	49,500	22,000	52,300	117
Townsend Coal Co.																
Tearing Run, ...	Drift, ...	Non-gas., .	Fan, ...	8.0	3.4	3.0	124	.5	Brazil, ...	Steam, ...	..	2	24,800	14,200	26,000	85
Graff Coal Co.																
Black Lick, ...	Drift, ...	Non-gas., .	Natural, ..	......	......	......	......	......	....	....	..	1	15,600	11,400	16,200	61
Coal Run Mining Co.																
Coal Run No. 1, ...	Drift, ...	Non-gas., .	Fan, ...	4.0	1.66	1.5	300	.2	Stine, ...	Electricity, .	..	2	16,500	11,300	17,000	71
Coal Run No. 2, ...			Natural,	......	......	......	......	......	....	....	..	1	3,200	1,600	3,500	4
Wharton Coal and Coke Co.																
Wharton, ...	Slope, ...	Gaseous, ..	Fan, ...	16.0	5.0	5.0	90	1.7	Capell, ...	Steam, ...	..	2	52,500	21,700	53,760	52
Bells Mill Coal Co.																
Bells Mill, ...	Drift, ...	Non-gas., .	Fan, ...	12.0	3.5	3.5	90	.6	Brazil, ...	Steam, ...	..	3	26,000	10,220	26,820	63
Robert Smith Coal Co.																
Smith, ...	Drift, ...	Non-gas., .	Natural, ..	......	......	......	......	......	....	....	..	1	4,800	2,120	5,200	28

TABLE I.—Continued

Names of Operators and Mines	Kind of opening	Gaseous or non-gaseous	Method of ventilation	Diameter of fan in feet and inches	Width of blades in feet and inches	Depth of blades in feet and inches	Number of revolutions per minute	Water gauge developed—in inches	Name of fan	Power used	Area of furnace bars in square feet	Number of splits of air currents	Number of cubic feet of air per minute entering the mine at inlet	Total number of cubic feet of air per minute circulating in all the splits	Number of cubic feet of air per minute passing out at outlet	Number of persons employed inside
Brush Creek Coal Mining Co.																
Coy No. 1, ...	Drift, ...	Non-gas., .	Fan, ...	4.0	1.66	1.5	150	.2	Stine, ...	Electricity, .	..	1	11,000	7,500	11,880	65
Snyder No. 1, ...			Fan, ...	4.0	1.66	1.5	150	.2	Stine, ...	Electricity, .	..	1	9,800	8,760	10,000	74
Snyder No. 2, ...			Fan, ...	6.0	2.75	2.66	120	.2	Stine, ...	Electricity, .	..	1	7,000	6,200	7,500	47
Snyder No. 3, ...			Natural,	......	......	......	......	......	....	....	..	1	2,800	1,620	3,000	12
Waterman No. 1, ...			Fan, ...	4.0	1.66	1.5	150	.2	Stine, ...	Electricity, .	..	1	9,400	6,720	9,750	63
Luciusboro No. 1, ...			Natural,	......	......	......	......	......	....	....	..	1	4,000	2,500	4,240	28
Tide Coal Mining Co.																
Tide No. 1, ...	Drift, ...	Non-gas., .	Fan, ...	6.0	2.75	1.5	150	.2	Stine.	Electricity, .	..	1	20,400	7,500	21,000	44
Tide No. 2, ...			Natural,	......	......	......	......	......	....	....	..	1	3,920	2,000	4,100	12
Clymer Brick and Fire Clay Co.																
Clymer No. 1, ...	Drift, ...	Non-gas., .	Furnace, ..	......	......	......	......	......	....	....	36	1	14,000	10,400	15,400	28
Hines Coal Co.																
Hines No. 2, ...	Slope, ...	Non-gas., .	Fan, ...	7.0	1.5	3.0	90	.2	Stine, ...	Steam, ...	..	1	8,400	5,040	8,500	14
Auld Run Coal Co.																
Auld Run, ...	Drift, ...	Non-gas., .	Furnace, ..	......	......	......	......	......	....	....	45	1	3,600	2,000	4,000	11

TABLE J.—Mines using coal cutting machines, power used, geological and local names of seams, thickest and thinnest seams where machines are used, and the approximate number of tons produced by machines

Names of Operators	Names of Mines	Kind of opening	Gaseous or non-gaseous	Number of mining machines used	Power used by machines	Geological and local names of seams	Average thickness in inches	Height of Seam in Inches		Approximate number of tons produced by machines
								Thickest	Thinnest	
Pittsburgh Gas Coal Co.,	Iselin Nos. 1, 2, 3, 4, 5,	Drift,	Non-gas.,	165	Compressed air	Pittsburgh,	66	88	44	1,697,815
	Frits No. 2,			7	Electricity,					
Totals,				172						1,697,815
Jefferson and Clearfield Coal and Iron Co.,	Ernest Nos. 1, 2, 3,	Drift,	Gaseous,	141	Compressed air,	Upper Freeport,	60	72	48	791,221
	Ernest No. 4,	Shaft,	Gaseous,	13	Electricity,	Upper Freeport,	42	44	40	
	Jacksonville No. 1,	Drift,	Gaseous,	40	Compressed air,	Lower Freeport,	60	64	56	594,298
	Jacksonville No. 2,	Drift,	Non-gas.,	8	Electricity,	Upper Freeport,	46	48	44	
	Jacksonville Nos. 3 and 4,	Drift,	Non-gas.,	8	Electricity,	Upper Freeport,	42	46	36	
Totals,				210						1,385,519
Rochester and Pittsburgh Coal and Iron Co.,	Lucerne Nos. 1 and 2,	Drift,	Gaseous,	40	Compressed air	Upper Freeport,	66	84	48	1,017 519
	Lucerne No. 3,	Shaft,		13	Electricity,					
Totals,				53						1,017,519
Penn-Mary Coal Co.,	Penn-Mary No. 1,	Drift,	Non-gas.,	2	Electricity,	Lower Freeport,	36	40	34	7,369
	Penn-Mary No. 2,	Drift,		1			36	39	34	1,837
	Penn-Mary No. 3,	Slope,		4			36	53	36	8,898
	Penn-Mary No. 7,	Drift,		1			36	39	35	1,692
Totals,				8						19,796

TABLE J.—Continued

Names of Operators	Names of Mines	Kind of opening	Gaseous or non-gaseous	Number of mining machines used	Power used by machines	Geological and local names of seams	Average thickness in inches	Height of Seam in Inches		Approximate number of tons produced by machines
								Thickest	Thinnest	
Russell Coal Co., ...	Victor No. 24, ...	Slope,...	Non-gas., .	32	Compressed air	Lower Freeport,	40	51	35	112,960
	Victor No. 25, ...	Drift, ...		4	Electricity,.....	Lower Freeport,	44	62	36	63,991
	Victor No. 29, ...	Slope,...		23		Lower Kittanning	40	46	36	52,059
Totals, ...	....	....	....	59	....	....	......	......	......	229,010
Graceton Coke Co., ...	Graceton No. 2, ...	Drift, ...	Non-gas., .	11	Compressed air, .	Upper Freeport,	66	76	48	29,767
	Graceton No. 3, ...	Drift, ...	Gaseous, ..	27	Compressed air, .	Upper Freeport,	72	78	48	73,065
Totals, ...	....	....	....	38	....	....	......	......	......	102,832
Pioneer Coal Co., ...	Empire M, ...	Drift, ...	Non-gas., .	10	Compressed air, .	Lower Kittanning	38	42	36	35,075
Clearfield Bituminous Coal Corporation, ...	Sample Run, ...	Drift, ...	Non-gas., .	9 3	Compressed air Electricity,.....	Lower Freeport,	46	72	30	141,160
Totals, ...	....	....	....	12	....	....	......	......	......	141,160
Greenwich Coal and Coke Co., ...	Greenwich No. 8, ...	Slope,.....	Gaseous, ..	3	Electricity,......	Lower Kittanning	44	54	38	24,251
Coal Run Mining Co., ...	Coal Run No. 1, ...	Drift, ...	Non-gas., .	1	Electricity,......	Lower Freeport,	60	64	56	66,352

Wharton Coal and Coke Co.,	Wharton,	Slope,	Gaseous,	5	Compressed air,	Upper Freeport,	70	78	62	12,500
Brush Creek Coal Mining Co.,	Coy No. 1,	Drift,	Non-gas.,	1	Electricity,	Upper Freeport,	66	82	60	26,451
	Snyder Nos. 1 and 2,			2		Lower Kittanning	46	48	44	
	Waterman,			2		Lower Kittanning	46	48	44	
Totals,				5						26,451
Tide Coal Mining Co.,	Tide No. 1,	Drift,	Non-gas.,	1	Electricity,	Lower Kittanning	46	48	44	9,871
Grand totals,				577						4,768,151

TABLE 1.—Operators, Location of Mines, Railroads, etc.

Names of Operators and Mines	County	Name of General Superintendent	Post Office	Name of Superintendent	Post Office	Railroad to Mine
Pittsburgh Gas Coal Co.						
Iselin Nos. 1, 2, 3, 4, 5,*	Indiana,	F. M. Fritchman,	Indiana,	W. B. Wardrop,	Iselin,	B. R. and P.
Fritz Nos. 1† and 2,						
Jefferson and Clearfield Coal and Iron Co.						
Ernest Nos. 1, 2, 3, 4,	Indiana,	F. M. Fritchman,	Indiana,	William Reed,	Ernest,	B. R. and P.
Cummings Shaft,				William Reed,	Ernest,	
Jacksonville Nos. 1, 2, 3, 4, 5†,				John Clifford,	Homer City,	
Rochester and Pittsburgh Coal and Iron Co.						
Lucerne Nos. 1, 2, and 3,	Indiana,	F. M. Fritchman,	Indiana,	Charles Cronk,	Homer City,	B. R. and P.
Penn-Mary Coal Co.						
Penn-Mary Nos. 1, 2, 3, 5, 6,† 7, 8,	Indiana,	H. P. Dowler,	Heilwood,	H. P. Dowler,	Heilwood,	Penna. and N. Y. C.
Russell Coal Co.						
Victor Nos. 24, 25, 26, 29,	Indiana,	W. D. Dunsmore,	Clymer,	W. D. Dunsmore,	Clymer,	N. Y. C. and H.
Graceton Coke Co.						
Graceton Nos. 2 and 3,	Indiana,	C. M. Lingle,	Graceton,			Pennsylvania
Pioneer Coal Co.						
Empire M,	Indiana,	G. Webb Shillingford,	Clearfield,	James St. Clair,	Clymer,	N. Y. C. and H.
Empire R,				Amiel Clemenson,	Clymer,	
Clearfield Bituminous Coal Corporation						
Sample Run,	Indiana,	H. J. Hinterleitner,	Clearfield,	H. H. Hetrick,	Clymer,	N. Y. C. and H.
Greenwich Coal and Coke Co.						
Greenwich Nos. 5 and 8,	Indiana,	M. J. Bracken,	Gallitzin,	J. C. Driscoll,	Love Joy,	Pennsylvania
Townsend Coal Co.						
Tearing Run,	Indiana,	J. G. Nickleson,	Barnesboro,	Joseph J. Campbell,	Homer City,	Pennsylvania
Graff Coal Co.						
Black Lick,	Indiana,	F. M. Graff,	Blairsville,	Ernest Fletcher,	Saltsburg,	Pennsylvania

*New mine.
†Idle.

Coal Run Mining Co. Coal Run Nos. 1* and 2,*	Indiana,	F. M. Fritchman,	Indiana,	John Clifford,	Homer City,	B. R. and P.
Wharton Coal and Coke Co. Wharton,	Indiana,	William Ramsay,	Coral,			Pennsylvania
Bells Mill Coal Co. Bells Mill,	Indiana,	F. M. Graff,	Blairsville,	Ernest Fletcher,	Saltsburg,	Pennsylvania
Robert Smith Coal Co. Smith,	Indiana,	R. B. Smith,	Blairsville,	R. B. Smith,	Blairsville,	Pennsylvania
Brush Creek Coal Mining Co. Coy No. 1,* Snyder Nos. 1,* 2,* 3,* Waterman No. 1,* Luciusboro No. 1,*	Indiana,	F. M. Fritchman,	Indiana,	C. W. Stuart,	Homer City,	B. R. and P.
Tide Coal Mining Co. Tide Nos. 1,* 2,*	Indiana,	F. M. Fritchman,	Indiana,	J. J. Ganley,	Homer City,	B. R. and P.
Clymer Brick and Fire Clay Co. Clymer No. 1,	Indiana,	G. W. Lenkert,	Clymer,			Penna. and N. Y. C.
Hines Coal Co. Hines No. 2.	Indiana,	C. E. Sharpless,	Cresson,	A. L. Christian,	Idamar,	N. Y. C. and H.
Auld Run Coal Co. Auld Run,	Indiana,	M. B. Courtright,	Philadelphia, 801 Arcade Building.			Pennsylvania

*New mine.

TABLE 2.—Number of tons of coal mined and tons of coke produced, number of days worked, number of persons employed, number killed and injured, quantity of powder, dynamite and permissible explosives used, etc.

Names of Operators and Mines	County	Number of tons of coal shipped to market	Number of tons used at mines for steam and heat	Number of tons sold to local trade and used by employes	Number of tons used in manufacture of coke	Total production of coal in tons	Total production of coke in tons	Number of coke ovens	Number of days worked	Number of employes	Number of fatal accidents	Number of non-fatal accidents	Explosives			Number of horses and mules
													Number of pounds of powder used	Number of pounds of dynamite used	Number of pounds of permissible explosives used	
Pittsburgh Gas Coal Co.																
Iselin Nos. 1, 2, and Fritz No. 2, ...	Indiana, ...	923,219	40,150	3,466	....	966,835	....	......	301	926	2	9	124,250	....	77,095	4
Iselin Nos. 3 and 5,....		406,021	13,139	286	....	419,446	....	......	303	454	2	3	58,200	....	33,806	24
Iselin No. 4, ...		302,707	8,737	90	....	311,534	....	......	299	326	2	2	1,000	....	20,150	....
Totals, ...	....	1,631,947	62,026	3,842	....	1,697,815	....	......	......	1,706	6	14	183,450	....	131,051	28
Jefferson and Clearfield Coal and Iron Co.																
Ernest Nos. 1, 2, 3, 4,.. Cummings Shaft, ...	Indiana, ...	654,873	44,300	2,092	39,956	791,221	44,972	278	296	1,154	8	9	75,550	....	17,675	....
Jacksonville Nos. 1 and 2, ...	Indiana, ...	395,132	....	606	....	395,738	....	......	305	330	1	4	....	1,150	18,228	2
Jacksonville Nos. 3 and 4, ...		198,155	....	405	....	198,560	....	......	305	283	....	5	....	850	22,710	....
Totals, ...	....	1,248,160	44,300	3,103	39,956	1,385,519	44,973	278	......	1,767	9	18	75,550	2,000	58,613	2
Rochester and Pittsburgh Coal and Iron Co.																
Lucerne Nos. 1, 2 and 3,.	Indiana.	966,956	48,000	2,563	....	1,017,519	....	......	299	1,001	7	9	75,000	....	20,000	....

Penn-Mary Coal Co.																
Penn-Mary No. 1, ...	Indiana, ...	183,510	15,436	3,485	....	202,431	....	......	278	200	....	2	3,645	5,230	....	....
Penn-Mary No. 2, ...		166,019	230	257	....	166,506	....	......	259	167	2	3	4,060	3,546	....	....
Penn-Mary No. 3, ...		170,351	64	29	....	170,444	....	......	262	171	2	4	4,660	1,471	....	....
Penn-Mary No. 5, ...		26,424	....	....	....	26,424	....	......	243	27	....	2	525	210	....	....
Penn-Mary No. 7, ...		93,273	....	....	....	93,273	....	......	245	96	....	....	6,235	3,669	....	....
Penn-Mary No. 8, ...		14,430	3	....	....	14,433	....	......	170	29	....	....	1,555	1,777	....	....
Totals, ...	....	654,007	15,733	3,771	....	673,511	....	......	......	690	4	11	20,680	15,903	....	....
Russell Coal Co.																
Victor No. 24, ...	Indiana, ...	195,378	11,412	....	....	206,790	....	......	243	268	....	....	41,350	2,480	....	21
Victor No. 25, ...		97,281	....	316	....	97,597	....	......	264	104	....	1	19,500	1,171	....	2
Victor No. 26, ...		18,794	....	....	....	18,794	....	......	269	12	....	....	3,780	....	....	2
Victor No. 29, ...		98,601	3,425	5	....	102,031	....	......	256	140	....	....	20,400	1,206	....	15
Totals, ...	....	410,054	14,837	321	....	425,212	....	......	......	524	....	1	85,030	4,857	....	40
Graceton Coke Co.																
Graceton Nos. 2 and 3,..	Indiana, ...	85,384	15,462	1,177	120,384	222,407	76,253	202	304	305	1	2	16,125	....	7,560	21
Pioneer Coal Co.																
Empire M, ...	Indiana, ...	92,277	1,645	3	....	93,925	....	......	288	95	....	2	18,800	100	....	1
Empire R, ...		105,408	....	99	....	105,507	....	......	282	92	....	....	21,000	25	....	....
Totals, ...	....	197,685	1,645	102	....	199,432	....	......	......	187	....	2	39,800	125	....	1
Clearfield Bituminous Coal Corporation																
Sample Run, ...	Indiana, ...	182,417	5,146	656	....	188,219	....	......	261	219	....	2	47,000	1,000	....	6
Greenwich Coal and Coke Co.																
Greenwich No. 5, ...	Indiana, ...	99,085	....	736	....	99,821	....	......	235	98	1	....	31,825	2,115	1,727	3
Greenwich No. 8, ...		76,263	7,299	153	....	83,715	....	......	274	135	....	2				
Totals, ...	....	175,348	7,299	889	....	183,536	....	......	......	233	1	2	31,825	2,115	1,727	3
Townsend Coal Co.																
Tearing Run, ...	Indiana, ...	98,956	1,872	425	....	101,253	....	......	294	94	....	1	15,246	700	400	7
Graff Coal Co.																
Black Lick, ...	Indiana, ...	80,237	2,000	....	....	82,237	....	......	288	74	....	....	....	....	....	5
Coal Run Mining Co.																
Coal Run Nos. 1 and 2,.	Indiana, ...	66,352	....	....	....	66,352	....	......	255	84	1	....	....	....	4,250	....
Wharton Coal and Coke Co.																
Wharton, ...	Indiana, ...	42,094	15,000	394	....	57,488	....	300	291	83	1	2	....	....	8,000	18
Bells Mill Coal Co.																
Bells Mill, ...	Indiana, ...	39,267	1,800	....	....	41,067	....	......	265	67	....	....	....	500	12,500	3

TABLE 2.—Continued

Names of Operators and Mines	County	Number of tons of coal shipped to market	Number of tons used at mines for steam and heat	Number of tons sold to local trade and used by employes	Number of tons used in manufacture of coke	Total production of coal in tons*	Total production of coke in tons	Number of coke ovens	Number of days worked	Number of employes	Number of fatal accidents	Number of non-fatal accidents	Explosives: Number of pounds of powder used	Explosives: Number of pounds of dynamite used	Explosives: Number of pounds of permissible explosives used	Number of horses and mules
Robert Smith Coal Co. Smith,	Indiana,	28,493	....	205	....	28,698	....	......	309	25	....	....	....	....	....	4
Brush Creek Coal Mining Co.																
Coy No. 1,	Indiana,	13,388	....	30	....	13,418	....	......	91	69	....	....	2,669	....	3,500	....
Snyder Nos. 1, 2 and 3,		8,982	....	....	....	8,982	....	......	84	153	....	....	1,796	....	2,335	....
Waterman No. 1,		3,235	....	390	....	3,625	....	......	51	58	....	....	725	....	953	....
Ludusboro No. 1,		176	....	250	....	426	....	......	37	34	....	....	85	....	112	....
Totals,	....	25,781	....	670	....	26,451	....	......	......	314	....	....	5,275	....	6,900	....
Tide Coal Mining Co. Tide Nos. 1 and 2,	Indiana,	9,871	....	....	....	9,871	....	......	149	78	....	....	2,750	....	8,000	....
Clymer Brick and Fire Clay Co. Clymer No. 1,†	Indiana,	....	9,483	....	....	9,483	....	......	293	27	....	....	5,350	5,625	10,975	3
Hines Coal Co. Hines No. 2,	Indiana,	3,958	162	....	....	4,120	....	......	91	16	....	....	500	....	....	1
Auld Run Coal Co. Auld Run,	Indiana,	2,384	....	....	....	2,384	....	......	30	12	....	....	1,250	....	....	1
Grand totals,	....	5,949,351	244,765	18,118	210,340	6,422,569	121,231	780	......	7,501	30	64	604,831	32,825	264,976	143

†Coal used in manufacture of brick.

TABLE 2—Part 2

Names of Operators	County	Number of Boilers					Locomotives				Number of steam engines of all classes	Total horse power	Number of pumps delivering water to surface	Capacity in gallons per minute	Quantity delivered to surface per minute—gallons	Number of electric dynamos	Number of air compressors
		Cylindrical	Horse power	Tubular	Horse power	Total horse power	Gasoline	Steam	Air	Electric							
Pittsburgh Gas Coal Co.,	Indiana,	......	......	27	5,630	5,630	....	....	....	29	21	5,275	10	2,875	2,320	7	11
Jefferson and Clearfield Coal and Iron Co.,		......	......	12	4,500	4,500	....	....	....	47	3	1,100	14	6,235	3,030	5	6
Rochester and Pittsburgh Coal and Iron Co.,		......	......	12	6,000	6,000	....	....	....	27	9	5,630	1	4,500	2,000	2	3
Penn-Mary Coal Co.,		......	......	7	1,845	1,845	....	....	....	12	5	1,800	2	2,350	1,250	5	......
Russell Coal Co.,		......	......	10	1,500	1,500	....	....	....	4	10	1,370	3	1,060	800	2	3
Graceton Coke Co.,		......	......	14	1,625	1,625	....	1	....	....	12	1,895	2	1,125	360	2	3
Pioneer Coal Co.,		......	......	4	550	550	....	....	....	3	1	300	....	....	....	1	1
Clearfield Bituminous Coal Corporation,		......	......	3	450	450	....	....	....	3	4	600	3	500	300	1	1
Greenwich Coal and Coke Co.,		......	......	5	650	650	....	....	....	4	6	1,100	2	850	550	2	1
Townsend Coal Co.,		......	......	2	165	165	....	....	....	....	2	120	3	450	320	......	1
Graff Coal Co.,		......	......	1	150	150	....	....	....	2	......	....	....	....	....	1	......
Coal Run Mining Co.,		......	......	....	....	....	....	....	....	2	......	....	2	120	30	......	......
Wharton Coal and Coke Co.,		......	......	8	1,060	1,060	....	....	....	....	5	1,100	1	1,076	750	2	2
Bells Mill Coal Co.,		......	......	2	330	330	....	....	....	....	1	120	2	300	200	......	1
Brush Creek Coal Mining Co.,		......	......	....	....	....	....	...	....	10	......	....	3	180	50	......	......
Tide Coal Mining Co.,		......	......	....	....	....	....	....	....	2	......	....	....	....	....	......	......
Clymer Brick and Fire Clay Co.,		......	......	....	....	....	....	....	....	....	......	....	1	80	50	......	......
Hines Coal Co.,		......	......	1	100	100	....	....	....	....	1	75	....	....	....	......	......
Totals,	....	......	......	108	24,555	24,555	....	1	....	145	80	20,485	49	21,691	12,010	30	33

TABLE 3.—Number of Each Class of Employes Inside and Outside of Mines

Names of Operators	County	Inside												Outside								Grand total inside and outside
		Mine foremen	Assistant mine foremen	Fire bosses	Miners	Machine runners	Machine loaders	Machine scrapers	Drivers and runners	Doorboys and helpers	Company men	All other employes	Total inside	Superintendents	Foremen	Blacksmiths and carpenters	Engineers and firemen	Coke employes	Bookkeepers and clerks	All other employes	Total outside	
Pittsburgh Gas Coal Co.,	Indiana, ...	7	7	....	......	31	1,031	31	45	9	157	8	1,326	2	5	19	33	....	2	319	380	1,706
Jefferson and Clearfield Coal and Iron Co.,		9	8	10	......	37	1,135	37	37	1	48	120	1,442	2	3	36	14	43	3	224	325	1,767
Rochester and Pittsburgh Coal and Iron Co.,		3	4	3	141	21	510	21	66	5	75	......	849	1	4	9	16	....	1	121	152	1,001
Penn-Mary Coal Co.,		6	7	1	535	8	......	......	......	3	58	......	618	1	1	9	12	....	4	45	72	690
Russell Coal Co.,		3	2	....	187	16	168	16	26	....	....	48	466	1	1	5	13	....	2	36	58	524
Graceton Coke Co.,		2	1	1	71	38	......	38	15	....	5	2	173	1	5	7	16	72	5	26	132	305
Pioneer Coal Co.,		2	2	....	153	......	......	......	4	1	8	......	170	....	....	3	1	....	1	12	17	187
Clearfield Bituminous Coal Corporation,		1	1	....	42	5	114	5	......	....	....	26	194	....	1	2	4	....	1	17	25	219
Greenwich Coal and Coke Co.,		2	....	1	137	5	30	5	......	3	19	3	205	1	....	6	7	....	1	13	28	233
Townsend Coal Co.,		1	....	1	73	......	......	......	7	....	3	......	85	1	....	1	2	....	....	5	9	94
Graff Coal Co.,		1	....	....	48	......	......	......	4	....	8	......	61	1	....	1	1	....	1	9	13	74
Coal Run Mining Co.,		1	....	....	......	2	64	2	......	....	6	......	75	1	....	1	....	....	1	6	9	84
Wharton Coal and Coke Co.,		1	1	1	25	1	7	1	5	1	5	4	52	1	1	3	8	....	3	15	31	83
Bells Mill Coal Co.,		1	....	....	52	......	......	......	8	....	2	......	63	....	....	1	2	....	....	1	4	67
Robert Smith Coal Co.,		1	....	....	18	......	......	......	1	....	3	......	23	1	....	....	....	....	1	....	2	25
Brush Creek Coal Mining Co.,		6	....	....	31	10	152	10	20	1	47	......	277	1	1	6	....	....	1	28	37	314

Tide Coal Mining Co.,	Indiana, ...	1	....	....	......	3	38	3	......	....	16	3	64	1	....	1	....	....	....	7	9	73
Clymer Brick and Fire Clay Co., ...		1	1	....	16	......	......	......	4	....	1	......	23	....	....	1	....	....	....	3	4	27
Hines Coal Co., ...		1	....	....	12	......	......	......	1	....	....	......	14	1	....	....	1	....	....	....	2	16
Auld Run Coal Co., ..		....	....	....	9	......	......	......	1	....	1	......	11	....	....	....	....	....	....	1	1	12
Totals, ...	....	50	34	18	1,550	177	3,249	169	244	24	462	214	6,191	17	22	111	130	115	27	888	1,310	7,501

TABLE 3.—Part 2

Names of Operators	County	Average Number of Days Worked												
		January	February	March	April	May	June	July	August	September	October	November	December	Total
Pittsburgh Gas Coal Co.,	Indiana,	22	20	21	19	23	20	20	22	23	27	25	22	264
Jefferson and Clearfield Coal and Iron Co.,		25	23	25	24	26	25	26	26	26	27	25	24	302
Rochester and Pittsburgh Coal and Iron Co.,		27	23	25	19	27	25	26	26	26	27	25	23	299
Penn-Mary Coal Co.,		25	20	24	21	26	21	23	18	17	19	17	12	243
Russell Coal Co.,		20	20	22	21	19	21	22	23	21	24	22	23	258
Graceton Coke Co.,		27	24	26	25	27	25	25	26	24	27	24	24	304
Pioneer Coal Co.,		26	24	24	20	20	23	25	26	23	27	23	24	285
Clearfield Bituminous Coal Corporation,		26	24	25	19	17	18	23	20	19	24	23	23	261
Greenwich Coal and Coke Co.,		22	20	22	20	22	22	23	22	19	22	21	20	255
Townsend Coal Co.,		27	23	26	20	21	25	26	25	26	27	24	24	294
Graff Coal Co.,		25	24	25	25	24	25	24	24	25	26	23	18	288
Coal Run Mining Co.,		......	......	24	25	27	25	26	26	26	27	25	24	255
Wharton Coal and Coke Co.,		26	24	26	26	20	20	26	24	25	27	22	25	291
Bells Mill Coal Co.,		20	22	20	24	25	20	23	23	20	21	24	23	265
Robert Smith Coal Co.,		27	24	26	26	26	25	26	26	26	27	24	26	309
Brush Creek Coal Mining Co.,		......	......	......	......	......	......	......	......	3	10	19	25	57
Tide Coal Mining Co.,		......	......	......	......	......	......	20	26	26	27	25	25	149
Clymer Brick and Fire Clay Co.,		26	24	24	20	24	23	26	26	25	26	23	26	293
Hines Coal Co.,		......	7	......	......	......	......	......	11	23	27	11	12	91
Auld Run Coal Co.,		12	8	7	1	......	......	......	......	......	......	......	2	30

TABLE 4.—Fatal Accidents Inside and Outside of Mines

Date of accident		Name of Person	Nationality	Occupation	Age	Married or single	Number of widows	Number of orphans	Name of Mine	County	Nature and Cause of Accident in Brief
Jan.	16	James Nelson, ...	American, ..	Miner, ...	28	S.	....	....	Penn-Mary No. 3,	Indiana, ...	Killed by fall of draw slate at face of room.
	29	Adolph Zamferino, ..	Italian, ...	Miner, ...	25	S.	....	....	Ernest No. 3, ..		Instantly killed by fall of slate at face of room.
Feb.	1	Louis Zambo, ...	Hungarian, .	Miner, ...	20	S.	....	....	Fritz No. 2, ...		Killed by fall of draw slate at face of entry.
	20	Louis Lessock, ...	Russian, ...	Miner, ...	26	S.	....	....	Lucerne No. 1, ..		Killed by fall of coal at face of pillar.
	21	Charles Matuskas, ..	Lithuanian,	Miner, ...	49	M.	1	....	Penn-Mary No. 2,		Fatally injured by fall of roof at face of pillar.
March	6	Frank Verbosky, ...	Hungarian, .	Spragger, ...	24	S.	....	....	Lucerne No. 1, ..		Fatally injured between an electric locomotive and pillar in room.
	11	Antonio Vellella, ...	Italian, ...	Miner, ...	21	M.	1	1	Penn-Mary No. 2,		Killed by fall of coal at face of room.
April	24	Steve Siech, ...	Hungarian, .	Miner, ...	29	M.	1	....	Lucerne No. 1,..		Killed by fall of roof at face of pillar.
May	15	Archie A. Potts, ...	American, ..	Cager, ...	29	M.	1	4	Ernest No. 4,....		Fatally injured between cage and shaft timber.
	20	Samuel Takone, ...	Italian, ...	Miner, ...	23	M.	1	....	Iselin No. 4, ...		Killed by fall of draw slate at face of room.
June	7	John Moruna, ...	Polish, ...	Miner, ...	29	S.	....	....	Coal Run No. 1,		Electrocuted by placing a coal auger on the ring bearing of an electric mining machine cable reel.
	12	John Spiaggi, ...	Italian, ...	Miner, ...	33	S.	....	....	Graceton No. 3,..		Fatally injured by fall of roof at face of room.
	20	Edward Vatanbuski,	Slavonian, ..	Loader, ...	30	M.	1	2	Lucerne No. 2, ..		Fatally injured by fall of roof at face of room.
July	3	Mike Petuck, ...	Italian, ...	Slate picker,	46	M.	1	4	Iselin No. 3,....		Killed by machinery under the picking table. Outside.
	9	Mike Debosky, ...	Hungarian, .	Motorman, ..	48	S.	....	....	Ernest No. 4, ..		Fatally injured by mine cars on haulage road.
	10	Tony Chejoli, ...	Italian, ...	Miner, ...	32	M.	1	3	Iselin No. 3,....		Killed by fall of draw slate at face of room.
	17	William Reed, ...	English, ..	Company man	19	S.	....	..	Cummings Shaft,		Killed at same time by a large slate roll falling on them at face of entry that was being driven around shaft.
		Tony Chicki, ...	Polish, ...	Miner, ...	22	S.	....	..			
		Tony Snyder, ...	Polish, ...	Miner, ...	28	M.	1	1			
		Mike Alena.	Italian, ...	Miner, ...	29	M.	1	2			

TABLE 4—Continued

Date of accident		Name of Person	Nationality	Occupation	Age	Married or single	Number of widows	Number of orphans	Name of Mine	County	Nature and Cause of Accident in Brief
July	28	Felix Perrell, ...	Italian, ...	Miner, ...	27	S.	....	....	Cummings Shaft,	Indiana, ...	Killed by fall of slate at face of entry.
Aug.	10	Eli Bedegray, ...	Horwat, ...	Miner, ...	19	S.	....	....	Wharton, ...		Killed by fall of slate on main slope road while cleaning up a fall.
	25	Stanley Salla, ...	Polish, ...	Miner, ...	30	M.	1	1	Jacksonville No. 1,		Electrocuted by getting a piece of pipe he had in his hands in contact with trolley wire on haulage road.
	29	Tony Trunzo, ...	Italian, ...	Spragger, ...	22	S.	....	....	Lucerne No. 3, ..		Fatally injured by being run over by mine cars on tram road. Outside.
Sept.	12	Angelo Dregets, ...	Italian, ...	Miner, ...	33	M.	1	3	Lucerne No. 2, ..		Fatally injured by fall of slate at face of pillar.
	20	Tony Flour, ...	Italian, ...	Spragger, ...	24	S.	....	....	Greenwich No. 5,		Fatally injured by mine cars on main haulage road.
	24	Carlo Dipizza, ...	Italian, ...	Miner, ...	46	M.	1	3	Penn-Mary No. 3,		Instantly killed by fall of slate at face of entry while in the act of taking it down to make the place safe.
	29	Alexander Sturon, ...	Italian, ...	Miner, ...	32	S.	....	....	Iselin No. 2, ..		Killed by fall of coal at face of room.
Oct.	11	Dominick Barro, ...	Italian, ...	Miner, ...	25	S.	....	....	Lucerne No. 1, ..		Killed by fall of slate at face of pillar.
	16	John Hany, ...	Russian, ...	Loader, ...	31	M.	1	1	Iselin No. 4, ..		Fatally injured by mine cars on entry while trying to put a check on a car after the trip was in motion.

TABLE 5.—Non-Fatal Accidents Inside and Outside of Mines

Date of accident		Name of Person	Nationality	Occupation	Age	Married or single	Name of Mine	County	Nature and Cause of Accident in Brief
Jan.	2	Benjamin Wishurskie,	Polish,	Miner,	26	M.	Iselin No. 1,	Indiana,	Leg broken by fall of draw slate at face of entry.
	10	Joseph Chiode,	Italian,	Laborer,	17	S.	Ernest No. 3,		Leg broken by mine cars on slate dump. Outside.
	15	Beremo Gerona,	Italian,	Miner,	24	S.	Penn-Mary No. 3,		Thigh broken by mine cars on entry.
		Michael Buterech,	Horwat,	Miner,	46	M.	Jacksonville No. 4,		Leg broken by fall of roof at mouth of room on entry.
	21	Peter Capasish,	Polish,	Miner,	19	S.	Penn-Mary No. 2,		Thigh broken by fall of coal at face of room.
	29	John Ondo,	Slavonian,	Miner,	19	S.	Lucerne No. 1,		Leg broken by fall of roof at face of pillar.
	31	Dominick Constantina,	Italian,	Laborer,	23	S.	Ernest,		Arm taken off near the elbow in gear wheels of coal washing machinery. Outside.
Feb.	5	Frank Scarlott,	Italian,	Motorman,	27	M.	Jacksonville No. 3,		Leg broken between electric locomotive and mine car.
	13	Thomas Yargoes,	Polish,	Miner,	40	M.	Ernest No. 2,		Simple fracture of thigh by fall of roof on his room roadway when a car knocked out a post.
	15	John Muttso,	Italian,	Miner,	22	S.	Penn-Mary No. 5,		Thigh fractured by fall of roof at face of pillar.
	21	Batista Fungy,	Italian,	Miner,	39	M.	Lucerne No. 1,		Injuries to head by fall of slate while loading a car at face of room.
		Jaconda Cook,	Italian,	Miner,	24	S.	Lucerne No. 1,		Left leg broken by fall of slate while loading a car at face of room.
	28	Benjamin Olson,	Swedish,	Company man,	53	M.	Jacksonville No. 2,		Leg broken and shoulder fractured by mine cars on entry.
March	6	Charles Sollman,	Slavonian,	Miner,	26	S.	Iselin No. 1,		Two fingers taken off between a post and sprag while putting the sprag in wheel of car along his room road.
	12	James John,	Italian,	Miner,	33	M.	Iselin No. 3,		Face, arms, legs and abdomen lacerated and burned. By blast that they thought had missed fire, after they had returned to face of room.
		Alfio Gergent,	Italian,	Miner,	35	M.	Iselin No. 3,		Legs and chest lacerated.

TABLE 5—Continued

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Name of Mine	County	Nature and Cause of Accident in Brief
March 25	Harry Taylor, ...	American, ..	Spragger, ...	19	S.	Penn Mary No 5, ...	Indiana, ...	Toes smashed between electric locomotive and block on a room switch.
28	F. G. Steffy, ...	American, ..	Laborer, ...	36	M.	Empire M.		Heel squeezed between mine car bumpers. Outside.
April 11	J. J. Custer, ...	American, ..	Miner, ...	53	M.	Sample Run, ...		Burned with powder in room.
18	Anton Horwat, ...	Hungarian,	Miner, ...	30	M.	Penn-Mary No. 3, ...		Pelvis injured by fall of roof at face of pillar.
25	Joseph Toti, ...	Slavonian, ..	Miner, ...	42	M.	Sample Run, ...		Finger taken off by mine car in room.
26	Peter Olena, ...	Granish, ...	Miner, ...	31	S.	Iselin No. 2, ...		Leg broken above the knee. By fall of slate at face of entry pillar.
	Anton Martin, ...	Granish.	Miner, ...	42	S.	Iselin No. 2, ...		Skull fractured and body bruised.
30	Julian Demett, ...	Italian, ...	Miner, ...	22	S.	Ernest No. 3, ...		Collar bone broken by fall of coal at face of room.
May 3	Andrew Dipper, ...	Austrian, ..	Miner, ...	37	S.	Iselin No. 4, ...		Head and arm fractured. By fall of coal at face of pillar.
	Joseph Dipper, ...	Austrian, ..	Miner, ...	19	S.	Iselin No. 4, ...		Head and leg fractured.
7	Tony Guyarvich, .:..	Lithuanian,	Miner, ...	42	S.	Ernest No. 1, ...		Compound fracture of leg by fall of coal at face of entry.
12	Joseph Salvadore, ...	Italian, ...	Miner, ...	19	S.	Jacksonville No. 1, ..		Leg broken by fall of roof at face of room.
	Tony Marketti, ...	Italian, ...	Miner, ...	26	S.	Iselin No. 1, ...		Head and foot bruised and two ribs broken by fall of draw slate at face of room.
14	Osch Anosky, ...	Slavonian, ..	Miner, ...	42	M.	Penn-Mary No. 2, ...		Skull fractured by fall of roof at face of pillar.
25	Angelo Spara, ...	Italian, ...	Motorman, ...	28	S.	Ernest No. 3, ...		Shoulder crushed and dislocated between the top of electric locomotive and mine roof on entry.
29	Peter Bartolina, ...	Italian, ...	Miner, ...	28	M.	Lucerne No. 1, ...		Collar bone broken and breast injured by fall of coal at face of room.
June 7	John Shimko, ...	Slavonian, ..	Miner, ...	32	M.	Penn-Mary No. 2, ...		Leg, arm and collar bone broken by mine cars on entry.
21	James Pinkerton, ...	Scotch, ...	Miner, ...	59	M.	Empire M, ...		Hips and back badly bruised by fall of draw slate at face of pillar.
30	Frank Muffley, ...	American, ..	Fireman, ...	42	M.	Penn-Mary No. 1.		First finger taken off at first joint and second, third and fourth fingers taken off entirely by being caught in gear wheels of pump motor. Outside.
July 5	Samuel Matrona, ...	Italian, ...	Miner, ...	28	M.	Lucerne No. 1		Leg broken by fall of coal at face of room.
15	Demslo Cicero, ...	Italian, ...	Miner, ...	31	S.	Penn Mary No.		Leg broken by fall of coal at face of room.

July	16	John Runion,	American,	Rollerman,	52	M.	Graceton No. 3,	Indiana,	Foot run over and badly bruised by rail truck. Outside.
	17	John Pish,	Polish,	Miner,	40	M.	Cummings Shaft,		Leg crushed and arm broken by fall of slate at face of entry being driven around shaft.
	19	Frank Steaven,	Polish,	Company man,	26	M.	Iselin No. 2,		Vertabra fractured and leg bruised by fall of roof coal on entry.
	25	Joseph Butcher,	Polish,	Laborer,	48	M.	Jacksonville No. 1,		Leg broken by mine car. Outside.
Aug.	2	Joseph Santo,	Italian,	Miner,	39	M.	Jacksonville No. 4,		Back broken by fall of slate at face of main airway.
	7	Berlin Futo,	Hungarian,	Miner,	34	M.	Ernest No. 2,		Head bruised and lacerated by mine car on entry at mouth of room.
		E. Wata,	Russian,	Miner,	28	M.	Iselin No. 2,		Leg broken by fall of coal at face of room.
	16	K. Midric,	Slavonian,	Spragger,	27	S.	Jacksonville No. 1,		Arm broken by mine cars on main entry side track.
	18	Howard Lucas,	American,	Company man,	28	M.	Tearing Run,		Injured internally by mine cars on main slope haulage road.
	23	Neut Gazzora,	Italian,	Miner,	23	S.	Lucerne No. 1,		Leg broken by fall of coal at face of entry.
Sept.	1	H. S. Keeper,	American,	Blacksmith,	53	M.	Penn-Mary No. 1,		Collar bone broken by being caught in engine belt in machine shop. Outside.
	4	Mike Vilepofski,	Slavonian,	Miner,	32	M.	Wharton,		Left ankle fractured and back injured by fall of coal at face of room.
	12	Mike Kunkaly,	Slavonian,	Miner,	28	M.	Graceton No. 3,		Finger taken off and hand injured by puncher mining machine at face of entry.
	25	John Conzas,	Polish,	Miner,	29	S.	Lucerne No. 3,		Burned by electric trolley wire while in the act of putting a check on a car of a moving trip on haulage road.
	26	Clyde Myers,	American,	Engineer,	38	M.	Lucerne No. 3,		Shoulder injured and ribs fractured by being caught in fly wheel of engine. Outside.
	27	Joseph Scateridge,	Italian,	Loader,	25	S.	Jacksonville No. 4,		Leg broken by mine car in room.
Oct.	7	Frank Ross,	Italian,	Miner,	20	S.	Penn-Mary No. 3,		Back broken by fall of slate at face of room.
	8	Peter Costell,	Italian,	Miner,	32	M.	Greenwich No. 8,		Rib broken and body bruised by mine car on entry at mouth of room.
	9	Steve Baloughi,	Slavonian,	Miner,	24	S.	Victor No. 25,		Rib broken and body bruised by being caught in picks of chain mining machine at face of room.
	14	James Crisbulle,	Italian,	Miner,	35	M.	Jacksonville No. 3,		Hip dislocated by fall of slate at face of room.
	16	Jacob Blow,	Italian,	Miner,	26	S.	Iselin No. 1,		Hip dislocated and back bruised by fall of draw slate at face of room.
	31	Jerry Driscoll,	Irish,	Company man,	59	S.	Wharton,		Femur bone fractured by mine cars on one of the room entries.
Nov.	13	Orazzio Sarratsio,	Italian,	Miner,	34	M.	Iselin No. 3,		Eyes and hand lacerated by blast in the coal at face of an entry.
	28	Steve Duchesky,	Italian,	Miner,	43	M.	Greenwich No. 8,		Collar bone fractured by fall of coal at face of room.
Dec.	3	Louis Nuck,	Italian,	Spragger,	23	S.	Ernest No. 4,		Leg broken by mine cars on haulage road.
	10	Charles Twetuula,	Polish,	Machine runner,	29	M	Iselin No. 1,		Leg broken by fall of coal at face of room.
	23	Frank Zack,	Italian,	Miner,	25	S.	Lucerne No. 1,		Compound fracture of leg between mine cars in room.

CONDITION OF MINES

PITTSBURGH GAS COAL COMPANY

Iselin No. 1.—Ventilation, drainage and general conditions good.

Iselin No. 2.—Ventilation good, except in one section or split, which had less than the minimum amount required by law. Sanitary conditions good. Drainage and other conditions good.

Iselin No. 3.—Ventilation good. Drainage good, except in the section known as No. 1 drift where the haulage roads are wet and muddy.

Iselin No. 4.—Ventilation and drainage very satisfactory.

Iselin No. 5.—A new mine and in very satisfactory condition.

Fritz No. 1.—Idle.

Fritz No. 2.—Ventilation, drainage and general conditions good.

JEFFERSON AND CLEARFIELD COAL AND IRON COMPANY

Ernest No. 1.—Ventilation and drainage very fair.

Ernest No. 2.—Ventilation in very good condition. Drainage and other conditions good.

Ernest No. 3.—Ventilation good, except in one section where the volume was somewhat less than the minimum amount required by law. Sanitary drainage and other conditions satisfactory.

Ernest No. 4.—Ventilation good. Drainage good, except on haulage road in one section.

Cummings Shaft.—Ventilation very fair; drainage good.

Jacksonville No. 1.—Airways cleaned up and ventilation very much improved. Drainage and general conditions good.

Jacksonville No. 2.—Ventilation very fair; drainage good.

Jacksonville No. 3.—Ventilation and drainage good.

Jacksonville No. 4.—Ventilation, drainage and general conditions good.

Jacksonville No. 5.—Idle.

ROCHESTER AND PITTSBURGH COAL AND IRON COMPANY

Lucerne No. 1.—Ventilation and drainage good. Some changes are being made in the way of splitting the air current more, so that not more than seventy persons will be employed in any one split.

Lucerne No. 2.—Ventilation good. Drainage good, except on a portion of the traveling way.

Lucerne No. 3.—Ventilation, drainage and general conditions good.

PENN-MARY COAL COMPANY

Penn-Mary No. 1.—Ventilation, drainage and general conditions good.

Penn-Mary No. 2.—Ventilation, drainage and general conditions good.

Penn-Mary No. 3.—Ventilation somewhat weaker than desirable at face of workings in portions of the mine, but the atmosphere was sanitary. Drainage good.

Penn-Mary No. 5.—Ventilation and drainage good.

Penn-Mary No. 6.—Idle.

Penn-Mary No. 7.—Ventilation, drainage and general conditions good.

Penn-Mary No. 8.—Idle the last half of the year and was not inspected.

RUSSELL COAL COMPANY

Victor No. 24.—Ventilation weak at working faces in some sections on account of leakage and was less than the minimum required by law, but the atmosphere of the mine was sanitary. Other sections in good condition. Drainage good.

Victor No. 25.—Ventilation very fair; drainage good.

Victor No. 26.—Not under the law.

Victor No. 29.—Ventilation and drainage good.

GRACETON COKE COMPANY

Graceton No. 2.—Ventilation and drainage very fair.

Graceton No. 3.—Ventilation, drainage and general conditions good.

PIONEER COAL COMPANY

Empire M.—Ventilation and drainage good.

Empire R.—Ventilation very fair. Drainage and other conditions good.

CLEARFIELD BITUMINOUS COAL CORPORATION

Sample Run.—Ventilation, drainage and general conditions good.

GREENWICH COAL AND COKE COMPANY

Greenwich No. 5.—Ventilation very fair; drainage good.

Greenwich No. 8.—Ventilation good in some portions, but weak in others. However, the atmosphere of the mine was sanitary. Drainage good.

TOWNSEND COAL COMPANY

Tearing Run.—Ventilation weak at face of workings on account of leakage through surface breaks. New airways are being driven and an air shaft being put down and a new fan will be installed early in 1914.

GRAFF COAL COMPANY

Black Lick.—Ventilation is natural throughout by numerous openings being made to the surface and is in excellent condition; drainage good.

COAL RUN MINING COMPANY

Coal Run No. 1.—Ventilation, drainage and general conditions good.

Coal Run No. 2.—A new mine opened near the close of the year. Was not inspected.

WHARTON COAL AND COKE COMPANY

Wharton.—Ventilation and drainage very satisfactory. This mine is worked exclusively with Wolf locked safety lamps.

BELLS MILL COAL COMPANY

Bells Mill.—Ventilation very fair; drainage good.

ROBERT SMITH COAL COMPANY

Smith.—Ventilation good. Drainage somewhat defective on the haulage roads, causing them to be wet and muddy.

BRUSH CREEK COAL MINING COMPANY

Coy No. 1.—New mine. Ventilation, drainage and general conditions good.

Snyder Nos. 1, 2 and 3.—New mines in good condition.

Waterman No. 1.—New mine Ventilation and drainage good.

Luciusboro No. 1.—New mine. Ventilation and drainage good.

TIDE COAL MINING COMPANY

Tide No. 1.—Ventilation, drainage and general conditions good.

Tide No. 2.—New mine opened near the close of the year. Was not inspected.

CLYMER BRICK AND FIRE CLAY COMPANY

Clymer No. 1.—Ventilation good. Drainage good, except in one section on haulage road. A water level entry is being driven from the outside that will drain the entire mine.

HINES COAL COMPANY

Hines No. 2.—Ventilation good, drainage fair.

AULD RUN COAL COMPANY

Auld Run.—Worked only thirty days and was not inspected.

IMPROVEMENTS

PITTSBURGH GAS COAL COMPANY

Iselin Nos. 1 and 2.—Built a supply house, 33 by 40 feet, of tile, near the other buildings, and installed steam heat in the machine, blacksmith and carpenter shops and the electric locomotive repair shop. Built 47 stone stoppings and one overcast. Installed three Goodman short wall mining machines and one electric pump.

Iselin Nos. 3 and 5.—Built a substation, 24 by 36 feet at the terminal of the transmission line of the Rochester and Pittsburgh Coal and Iron Company, and installed one rotary converter 300 K. W. type TC., and three large General Electric transformers type HR. and three smaller ones, type H, and switchboard. Approximate cost $10,000. Installed electric haulage in one section of No. 3 mine and also one Goodman short wall mining machine. Built 20 stone stoppings. Installed one short wall machine and one electric pump in No. 5 mine.

Iselin No. 4.—Cleaned up and repaired the main airway from the fan to No. 8 right and built 15 stone stoppings. Installed one short wall machine and two electric pumps.

Fritz No. 2.—Built 15 stone stoppings. Installed three short wall mining machines and two electric pumps.

JEFFERSON AND CLEARFIELD COAL AND IRON COMPANY

Ernest Nos. 1, 2 and 3.—Two incoming line switches and lightning arrester equipment installed at the power house, with three transformers and rotary converter. Built five overcasts and 55 masonry stoppings. In No. 2 mine a permanent electric pumping station was installed in a fireproof house inside at the bottom of pumping shaft.

Ernest No. 4.—Built 26 stone stoppings and one overcast. Built a pump room of incombustible material near the bottom of main shaft and installed two electric pumps.

Jacksonville Nos. 1 and 2.—Cleaned up several thousand feet of main airways in both mines. Built 44 stone stoppings and three overcasts. Three incoming line switches and lightning arrester equipment installed in the sub-station on the surface.

Jacksonville No. 3.—Built 12 stone stoppings and one overcast. Installed a Sturtevant fan, 4.4 by 14 feet, directly connected to 100 H. P. Polyphase commutating A. C. motor.

Jacksonville No. 4.—Built 15 stone stoppings and one overcast. Installed a Robinson fan, 2.25 x 2.5 feet, directly connected to 100 H. P. Polyphase commutating A. C. motor.

ROCHESTER AND PITTSBURGH COAL AND IRON COMPANY

Lucerne Nos. 1, 2 and 3.—Built 62 stone stoppings and three overcasts and cleaned up about 2,000 feet of airway. Built a transmission power line from McIntyre to Iselin, a distance of five miles, approximate cost $15,000. Also a similar line from the Lucerne power house to Waterman, a distance of four miles, at an approximate cost of $12,000. The large pump room at the bottom of main shaft No. 3 mine was made fireproof.

BRUSH CREEK COAL MINING COMPANY

Snyder Nos. 1 and 2.—Built a sub-station, 24 by 36 feet, at the terminal of the Transmission line built by the Rochester and Pittsburgh Coal and Iron Company from the Lucerne Power House, in which it installed one 300 K. W. motor generator, switch board, et cetera. Approximate cost of this sub-station and equipment, $12,000. Feeder lines are run from this point to the Coy, Waterman and Luciusboro mines. Built a steel tipple equipped with the latest tipple machinery to handle the produces of Snyder Nos. 1, 2 and 3 mines.

TIDE COAL MINING COMPANY

Tide Nos. 1 and 2.—Built a sub-station, 20 by 26 feet, and installed one 200 K. W. rotary converter, transformers and switch-board complete. The power is furnished by the Rochester and Pittsburgh Coal and Iron Company from their Lucerne power house about two miles distant. Approximate cost of substation and equipment, $9,000.

MINE FOREMEN'S, ASSISTANT MINE FOREMEN'S AND FIRE BOSSES' EXAMINATIONS

The annual examination of applicants for certificates of qualification as mine foremen, assistant mine foremen and fire bosses was held in the Spirit Building, Punxsutawney, May 6, 7 and 8. The Board of Examiners was composed of Thomas S. Lowther, Inspector; John Reed, Superintendent, and Calvin S. Horning, Miner.

There were 54 applicants for certificates of qualification as mine foremen and assistant mine foremen and 27 applicants for certificates of qualification as fire bosses. The following persons passed a satisfactory examination and were granted certificates:

MINE FOREMEN

Second Grade

Clawson Earley, Soldier; George Love, Ernest; John M. Coleman, Charles H. Carl, Iselin; Samuel R. Madill, Homer City; Wilbur S. Harding, Punxsutawney; Heath Hilliard, Sykesville.

ASSISTANT MINE FOREMEN

Lewis Thomas; Reed; Thomas D. Thomas, Homer City; Leonard Del Principi, Indiana, R. F. D.; George Love, Ernest; John M. Coleman, Iselin.

FIRE BOSSES

John Patterson, James McLachlan, Sr., William H. Craft, Yatesboro; Mathew Harris, Iven E. Dunlap, Reuben E. Shaner, Homer City; Alfred Nylund, James Miller, Sagamore; John O. Strandquest, David G. Ruddock, Ernest; Walter J. Findley, Rural Valley; Andrew Watson, Indiana, R. F. D.; Jesse H. Laney, Coral; Edward Brown, Frostburg; Clyde L. Buhite, Sykesville.

TWENTY-SIXTH DISTRICT

WASHINGTON AND ALLEGHENY COUNTIES

Bridgeville, Pa., February 20, 1914.

Hon. James E. Roderick, Chief of Department of Mines:

Sir: In compliance with the Act of Assembly of June 9, 1911, I herewith transmit my annual report of the Twenty-sixth Bituminous District for the year ending December 31, 1913.

There was an increase of two fatal accidents and ten non-fatal accidents, over the preceding year, and an increase of 438,625 tons in the production.

Respectfully submitted,
P. J. CALLAGHAN, Inspector.

SUMMARY OF STATISTICS

Number of mines,	34
Number of mines in operation,	24
Number of tons of coal shipped to market,	5,652,311
Number of tons used at mines for steam and heat,	143,441
Number of tons sold to local trade and used by employes,	28,156
Number of tons used in the manufacture of coke,	....
Number of tons of coal produced,	5,823,908
Number of tons of coke produced,	....
Number of coke ovens,	....
Number of coke ovens in operation,	....
Number of tons of coal produced by pick mining,	907,412
Number of tons produced by compressed air machines,	168,280
Number of tons produced by electrical machines,	4,748,216
Number of persons employed inside of mines,	6,099
Number of persons employed outside, including coke workers,	819
Number of persons employed at manufacture of coke,	....
Number of fatal accidents inside of mines,	20
Number of fatal accidents outside,	1
Number of non-fatal accidents inside of mines,	50
Number of non-fatal accidents outside,	....
Number of tons of coal produced per fatal accident inside,	291,195
Number of tons produced per fatal accident outside,	5,823,908
Number of tons produced per fatal accident inside and outside,	278,254
Number of persons employed per fatal accident inside,	305
Number of persons employed per fatal accident outside,	819
Number of persons employed per fatal accident inside and outside,	330
Number of persons employed per non-fatal accident inside,	122
Number of persons employed per non-fatal accident outside,	....
Number of persons employed per non-fatal accident inside and outside,	139
Number of wives made widows,	11
Number of children made orphans,	37
Number of steam locomotives used inside of mines,	....
Number of steam locomotives used outside,	2
Number of compressed air locomotives used inside,	....
Number of compressed air locomotives used outside,	....
Number of electric motors used inside,	74
Number of electric motors used outside,	....
Number of gasoline locomotives used inside,	....
Number of fans in use,	26
Number of furnaces in use,	....
Number of gaseous mines in operation,	17
Number of non-gaseous mines in operation,	7
Number of new mines opened,	5
Number of old mines abandoned,	1

TABLE A

PRODUCTION OF COAL

Names of Operators

	Tons
Pittsburgh Coal Company,	2,326,138
National Mining Company,	980,963
Pittsburgh-Buffalo Company,	546,503
Meadow Lands Coal Company,	541,744
United Coal Company,	420,471
Youghiogheny and Ohio Coal Company,	411,432
McClane Mining Company,	160,000
Pryor Coal Company,	123,504
Avella Coal Company,	106,179
Pittsburgh and Southwestern Coal Company,	102,200
John M. Greek and Company,	48,581
Waverly Coal and Coke Company,	33,000
McClane Coal Company,	23,193
Total,	5,823,908

Production of Counties

Washington,	3,660,805
Allegheny,	2,163,103
Total,	5,823,908

TABLE B.—Fatal and non-fatal accidents inside and outside of mines; number of tons of coal produced per accident; number of persons employed; number employed per accident

Names of Operators	Fatal Accidents			Non-Fatal Accidents			Tons of coal produced per fatal accident inside	Tons of coal produced per non-fatal accident inside	Number of employes inside	Number of employes outside	Total number of employes	Number of employes inside per fatal accident	Number of employes outside per fatal accident	Number of employes inside per non-fatal accident	Number of employes outside per non-fatal accident
	Inside	Outside	Total	Inside	Outside	Total									
Pittsburgh Coal Co.,	9	1	10	17	......	17	258,460	136,832	2,600	338	2,938	289	338	153	....
National Mining Co.,	2	......	2	8	......	8	490,481	122,620	823	143	966	411	....	108	....
Pittsburgh-Buffalo Co.,	......	......	......	5	......	5	....	109,301	498	67	565	....	....	100	....
Meadow Lands Coal Co.,	5	......	5	6	......	6	108,349	90,291	587	52	639	117	....	98	....
United Coal Co.,	......	......	......	4	......	4	....	105,118	475	55	530	....	....	119	....
Youghiogheny and Ohio Coal Co.,	2	......	2	5	......	5	205,716	82,286	445	63	508	222	....	89	....
Pryor Coal Co.,	1	......	1	2	......	2	123,504	61,752	118	16	134	118	....	59	....
Avella Coal Co.,	......	......	......	1	......	1	....	106,179	87	17	104	....	....	87	....
Pittsburgh and Southwestern Coal Co.,	1	......	1	1	......	1	102,200	102,200	101	19	120	101	....	101	....
John M. Greek and Co.,	......	......	......	1	......	1	....	48,581	56	9	65	....	....	56	....
Miscellaneous Companies,	......	......	......	......	......	......	....	....	309	40	349	....	....	....	....
Totals and averages for district,	20	1	21	50	......	50	291,195	116,478	6,099	819	6,918	305	819	122	....

TABLE C.—Classification of Fatal Accidents Inside and Outside of Mines

	Months													
	January	February	March	April	May	June	July	August	September	October	November	December	Totals	Percentages
Causes of Accidents Inside														
Falls of slate, ...	....	....	....	....	3	2	1	....	....	....	....	1	7	35.00
Falls of roof, ...	1	....	....	....	1	....	2	2	1	....	....	....	7	35.00
Mine cars, ...	....	....	1	....	1	....	....	....	....	....	....	....	2	10.00
Machinery, ...	....	....	....	....	....	....	....	....	....	1	....	....	1	5.00
Electricity, ...	....	....	1	....	....	....	....	2	....	....	....	....	3	15.00
Totals, ...	1	....	2	....	5	2	3	4	1	1	....	1	20	100.00
Causes of Accidents Outside														
Electricity, ...	....	....	....	....	....	....	1	....	....	....	....	....	1	100.00
Totals, ...	....	....	....	....	....	....	1	....	....	....	....	....	1	100.00
Grand totals inside and outside, ...	1	....	2	....	5	2	4	4	1	1	....	1	21	......

TABLE D.—Classification of Non-Fatal Accidents Inside and Outside of Mines

	Months													
	January	February	March	April	May	June	July	August	September	October	November	December	Totals	Percentages
Causes of Accidents Inside														
Falls of coal, ...	....	....	1	....	....	....	....	1	....	....	....	....	2	4.00
Falls of slate, ...	....	4	1	1	3	....	....	2	3	1	1	3	19	38.00
Falls of roof, ...	1	....	....	2	3	2	2	1	....	....	....	2	13	26.00
Mine cars, ...	1	....	....	2	1	....	2	1	3	2	....	....	12	24.00
Mules, ...	....	....	1	....	....	....	....	....	....	....	....	....	1	2.00
Machinery, ...	....	....	....	....	1	....	....	1	....	....	1	....	3	6.00
Totals, ...	2	4	3	5	8	2	4	6	6	3	2	5	50	100.00
Causes of Accidents Outside (No Accidents)														

TABLE E.—Occupations of Persons Killed or Fatally Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
Inside													
Miners,	1	....	....	....	1	....	2	....	1	....	....	....	5
Machine runners,	....	....	1	....	....	....	....	....	....	....	....	....	1
Machine loaders,	....	....	....	....	3	2	1	4	....	....	....	1	11
Machine scrapers,	....	....	....	....	....	....	....	....	....	1	....	....	1
Drivers and runners,	....	....	1	....	....	....	....	....	....	....	....	....	1
Motormen,	....	....	....	....	1	....	....	....	....	....	....	....	1
Totals,	1	....	2	....	5	2	3	4	1	1	....	1	20
Outside													
Drivers,	....	....	....	....	....	....	1	....	....	....	....	....	1
Totals,	....	....	....	....	....	....	1	....	....	....	....	....	1
Grand totals inside and outside,	1	....	2	....	5	2	4	4	1	1	....	1	21

TABLE F.—Occupations of Persons Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
Inside													
Superintendents,	....	....	....	....	....	....	....	....	....	....	....	1	1
Fire bosses,	....	....	....	....	....	....	1	....	....	....	....	....	1
Miners,	1	2	....	1	2	1	....	2	2	....	1	1	13
Machine runners,	....	....	....	....	1	....	1	2	....	....	....	....	4
Machine loaders,	....	2	2	2	5	1	....	1	2	1	....	2	18
Drivers and runners,	1	....	1	....	....	....	1	....	1	1	....	....	5
Motormen,	....	....	....	1	....	....	....	....	....	1	....	....	2
Laborers,	....	....	....	....	....	....	....	1	1	....	....	1	3
Pumpmen,	....	....	....	....	....	....	1	....	....	....	1	....	2
Timbermen,	....	....	....	1	....	....	....	....	....	....	....	....	1
Totals,	2	4	3	5	8	2	4	6	6	3	2	5	50
Outside (No Accidents)													

TABLE G.—Nationality of Persons Killed or Fatally Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Total
American,	....	....	....	....	1	1	1	....	....	1	....	....	4
English,	....	....	1	....	....	....	....	....	....	....	....	....	1
Polish,	....	....	....	....	....	....	1	1	....	....	....	1	3
Hungarian,	....	....	....	....	2	....	....	....	....	....	....	....	2
Italian,	....	....	1	....	....	1	....	1	1	....	....	....	4
Slavonian,	....	....	....	....	....	....	....	1	....	....	....	....	1
Lithuanian,	....	....	....	....	1	....	....	....	....	....	....	....	1
Austrian,	....	....	....	....	1	....	....	....	....	....	....	....	1
Russian,	1	....	....	....	....	....	1	1	....	....	....	....	3
Greek,	....	....	....	....	....	....	1	....	....	....	....	....	1
Totals,	1	....	2	....	5	2	4	4	1	1	....	1	21

TABLE H.—Nationality of Persons Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Total
American,	....	....	....	1	....	1	....	....	1	....	1	1	5
English,	....	1	....	1	1	....	....	1	....	....	....	....	4
Scotch,	....	....	....	....	....	....	1	....	....	....	....	....	1
Irish,	....	....	....	....	....	....	....	1	....	1	....	....	2
German,	....	....	....	....	....	....	....	....	....	....	1	1	2
Polish,	....	....	....	1	....	....	....	1	3	1	....	....	6
Hungarian,	....	....	....	1	1	....	....	....	....	....	....	....	2
Italian,	1	1	....	....	1	....	2	1	....	....	....	3	9
Slavonian,	....	....	1	....	1	....	....	....	....	1	....	....	3
Lithuanian,	....	....	1	....	1	....	....	....	....	....	....	....	2
Austrian,	....	1	....	1	1	....	1	1	2	....	....	....	7
Russian,	....	....	1	....	2	1	....	....	....	....	....	....	4
Greek,	1	....	....	....	....	....	....	....	....	....	....	....	1
French,	1	....	....	....	....	....	....	1	....	....	....	....	2
Totals,	2	4	3	5	8	2	4	6	6	3	2	5	50

TABLE I.—Operators and mines, kind of openings, type and size of fans, size of furnaces, volume of air produced by fan or furnace per minute, number of splits of air currents and number of persons employed inside

Names of Operators and Mines	Kind of opening	Gaseous or non-gaseous	Method of ventilation	Diameter of fan in feet and inches	Width of blades in feet and inches	Depth of blades in feet and inches	Number of revolutions per minute	Water gauge developed—in inches	Name of fan	Power used	Number of splits of air currents	Number of cubic feet of air per minute entering the mine at inlet	Total number of cubic feet of air per minute circulating in all the splits	Number of cubic feet of air per minute passing out at outlet	Number of persons employed inside
Pittsburgh Coal Co.															
Allison, ...	Drift, ...	Non-gas., .	Fan, ...	8.0	5.5	3.4	400	1.3	Stine, ...	Electricity,	4	57,000	45,810	65,000	216
Bridgeville, ...	Drift, ...	Gaseous, ..	Fan, ...	16.0	5.0	4.10	112	2.4	Vulcan, ...	Electricity,	8	96,000	62,100	110,000	335
Creedmoor, ...	Shaft, ...	Gaseous, ..	Fan, ...	16.6	8.0	4.3	100	1.6	Wilson, ...	Steam, ...	9	102,400	63,130	115,900	326
Harrison, ...	Slope, ...	Gaseous, ..	2 Fans,	8.0	2.5	2.4	325	1.5	Stine, ...	Electricity,	7	92,600	45,100	108,800	398
				25.0	3.0	5.0	66	2	Vulcan, ...	Electricity,					
Laurel Hill No. 2, ...	Shaft, ...	Gaseous, ..	Fan, ...	20.0	6.11	5.6	80	1.2	Vulcan, ...	Steam, ...	4	89,080	49,600	104,020	255
Laurel Hill No. 5, ...	Shaft, ...	Gaseous, ..	Fan, ...	8.0	8.0	3.	350	1.0	Stine, ...	Electricity,	8	59,400	43,000	63,000	197
Midland No. 1, ...	Drift, ...	Gaseous, ..	2 Fans,	8	2.5	2.4	400	.5	Stine, ...	Electricity,	14	142,000	130,000	152,000	407
				11.6	4.4	5.2	200	2.5	Capell, ...	Electricity,					
Midland No. 3, ...	Drift, ...	Gaseous, ..	Fan, ...	11.6	4.4	5.2	180	1.6	Capell, ...	Steam, ...	5	88,000	53,580	100,800	280
Summer Hill, ...	Drift, ...	Gaseous, ..	Fan, ...	16.0	7.0	6.0	118	1.5	Capell, ...	Steam, ...	4	62,000	42,880	*96,000	186
National Mining Co.															
National No. 1, ...	Slope, ...	Gaseous, ..	Fan, ...	16.0	6.0	8.0	145	3.5	Capell, ...	Steam, ...	7	167,200	108,010	171,700	398
National No. 2, ...	Slope, ...	Gaseous, ..	Fan, ...	16.0	6.0	8.0	145	3.0	Capell, ...	Steam, ...	6	146,200	92,760	157,500	430
Pittsburgh-Buffalo Co.															
Hazel, ...	Slope, ...	Gaseous, ..	Fan, ...	22.0	8.0	4.0	115	2.3	Lepley, ...	Steam, ...	10	166,070	90,360	176,400	496
Meadow Lands Coal Co.															
Meadow Lands No. 1, ...	Drift, ...	Non-gas., .	Fan, ...	7.0	1.4	8.1	400	.8	Stine, ...	Electricity,	2	48,680	24,000	47,000	172
Meadow Lands No. 2, ...	Shaft, ...	Gaseous, ..	Fan, ...	20.0	5.6	7.0	85	1.25	Brazil, ...	Steam, ...	3	55,000	27,400	64,600	218
Meadow Lands No. 3, ...	Slope, ...	Gaseous, ..	Fan, ...	20.0	5.6	7.0	80	1.0	Brazil, ...	Steam, ...	2	54,600	12,100	61,000	197

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*Assists in ventilating Mansfield mine, Pittsburgh Coal Co., Seventeenth District.

United Coal Co.															
Rich Hill, ...	Slope,.....	Gaseous,..	Fan, ...	16.0	6.5	4.0	140	2.0	Robinson, ...	Steam,......	7	154,000	56,370	170,000	475
Youghiogheny and Ohio Coal Co.															
Manifold No. 1, ...	Shaft, ...	Gaseous,..	Fan, ...	15.0	3.0	3.0	120	1.8	Jeffrey, ...	Steam,......	5	110,000	70,900	121,000	287
Manifold No. 2, ...	Shaft, ...	Gaseous,..	Fan, ...	16.0	3.0	3.6	115	1.9	Clifford, ...	Steam,......	3	115,000	51,700	135,000	158
McClane Mining Co.															
Maud, ...	Drift, ...	Non-gas.,.	Fan, ...	12.0	3.8	3.4	110	1.5	Brazil, ...	Electricity,	3	38,400	25,000	40,000	198
Pryor Coal Co.															
Avella No. 1, ...	Drift, ...	Non-gas.,.	Fan, ...	8.0	2.0	2.6	260	.5	Jeffrey, ...	Electricity,	2	35,600	24,710	38,000	118
Avella Coal Co.															
Penobscot, ...	Drift, ...	Non-gas.,.	Fan, ...	12.4	4.0	3.0	80	.8	Cole, ...	Steam,......	3	40,100	28,590	43,400	87
Pittsburgh and Southwestern Coal Co.															
Pittsburgh and Southwestern No. 1, ...	Slope,.....	Gaseous,..	Fan, ...	16.0	6.0	4.0	80	1.1	Brazil, ...	Steam,......	2	38,000	25,000	42,000	101
John M. Greek and Co.															
Dandy, ...	Drift, ...	Non-gas.,.	Fan, ...	5.0	1.3	2.0	125	.2	Stine, ...	Compressed air.	1	22,000	12,000	24,000	56
Waverly Coal and Coke Co.															
Waverly, ...	Drift, ...	Non-gas.,.	Fan, ...	12.0	4.0	3.0	45	1.0	Vulcan, ...	Steam,......	1	16,500	7,600	20,000	82
McClane Coal Co.															
Katie, ...	....	....	....	......	......	......	......	......	....	....	....	....	....	....	29

TABLE J.—Mines using coal cutting machines, power used, geological and local names of seams, thickest and thinnest seams where machines are used, and the approximate number of tons produced by machines

Names of Operators	Names of Mines	Kind of opening	Gaseous or non gaseous	Number of mining machines used	Power used by machines	Geological and local names of seams	Average thickness in inches	Height of Seam in Inches		Approximate number of tons produced by machines
								Thickest	Thinnest	
Pittsburgh Coal Co.,	Allison,	Drift,	Non-gas.,	10	Electricity,	Pittsburgh, Thin.	68	72	62	183,304
				5	Compressed air					20,361
	Bridgeville,	Drift,	Gaseous,	12	Electricity,		64	66	62	279,235
	Creedmoor,	Shaft,	Gaseous,	13	Electricity,		65	66	64	226,077
	Harrison,	Slope,	Gaseous,	15	Electricity,		65	84	54	345,274
	Laurel Hill No. 2,	Shaft,	Gaseous,	10	Electricity,		70	77	64	187,998
	Laurel Hill No. 5,	Shaft,	Gaseous,	9	Electricity,		64	66	63	79,037
	Midland No. 1,	Drift,	Gaseous,	16	Electricity,		62	64	60	273,549
	Midland No. 3,	Drift,	Gaseous,	14	Electricity,		62	64	60	189,424
	Summer Hill,	Drift,	Gaseous,	7	Electricity,		66	70	62	110,399
Totals,	....	....	....	111	....	....	......	......	......	1,894,658
National Mining Co.,	National No. 1,	Slope,	Gaseous,	23	Electricity,	Pittsburgh, Thin,	61	71	58	412,551
	National No. 2,	Slope,	Gaseous,	20	Electricity,	Pittsburgh, Thin,	61	69	48	441,876
Totals,	....	....	....	43	....	....	......	......	......	854,427
Pittsburgh-Buffalo Co.,	Hazel,	Slope,	Gaseous,	39	Electricity,	Pittsburgh, Thin,	60	72	57	477,178
Meadow Lands Coal Co.,	Meadow Lands No. 1,	Drift,	Non-gas.,	6	Electricity,	Pittsburgh, Thin.	66	72	60	225,062
	Meadow Lands No. 2,	Shaft,	Gaseous,	12			60	57	50	178,059
	Meadow Lands No. 3,	Slope,	Gaseous,	6			60	72	54	106,417
Totals,	....	....	....	24	....	....	......	......	......	501,538

United Coal Co.,	Rich Hill,	Slope,	Gaseous,	21	Electricity,	Pittsburgh, Thin,	62	72	48	856,198
Youghiogheny and Ohio Coal Co.,	Manifold No. 2,	Shaft,	Gaseous,	9	Electricity,	Pittsburgh, Thin,	62	72	56	310,632
	Manifold No. 1,	Shaft,	Gaseous,	14	Electricity,	Pittsburgh, Thin,	62	72	56	
Totals,				23						310,632
McClane Mining Co.,	Maud,	Drift,	Non-gas.,	11	Electricity,	Pittsburgh, Thin,	68	75	62	152,000
Pryor Coal Co.,	Avella No. 1,	Drift,	Non-gas.,	6	Electricity,	Pittsburgh, Thin,	57	58	48	113,835
Avella Coal Co.,	Penobscot,	Drift,	Non-gas.,	5	Electricity,	Pittsburgh, Thin,	57	60	54	100,116
Pittsburgh and Southwestern Coal Co.,	Pittsburgh and Southwestern No. 1.	Slope,	Gaseous,	14	Compressed air,	Pittsburgh, Thin,	60	75	48	94,200
John M. Greek and Co.,	Dandy,	Drift,	Non-gas.,	8	Compressed air,	Pittsburgh, Thin,	66	72	60	38,719
Waverly Coal and Coke Co.,	Waverly,	Drift,	Non-gas.,	14 3	Compressed air Electricity,	Pittsburgh, Thin,	60	66	54	20,000
Total,				17						20,000
Grand totals,				322						4,916,496

TABLE 1.—Operators, Location of Mines, Railroads, etc.

Name of Operators and Mines	County	Name of General Superintendent	Post Office	Name of Superintendent	Post Office	Railroad to Mine
Pittsburgh Coal Co.						
Allison,	Washington,	George W. Schluederberg.	Pittsburgh,	W. A. Lockhart,	Houston,	P. C. C. and St. L.
*Bower Hill,	Allegheny,			S. P. McCaffrey,	Bridgeville,	P. C. C. and St. L.
Bridgeville,	Allegheny,			S. P. McCaffrey,	Bridgeville,	P. C. C. and St. L.
Creedmoor,	Washington,			Thomas Kagle,	Cecil,	P. C. C. and St. L.
Harrison,	Allegheny,			William Linsley,	Beadling,	P. C. and Y.
Laurel Hill No. 2,	Washington,			Thomas Kagle,	Cecil,	P. C. C. and St. L.
Laurel Hill No. 5,	Allegheny,			Thomas Kagle,	Cecil,	P. C. C. and St. L.
Midland Nos. 1, 2* and 3,	Washington,			W. A. Lockhart,	Houston,	P. C. C. and St. L.
Montour Nos. 1,† 2† and 4,†	Washington,			....	....	Montour
*Ridgway,	Washington,			Thomas Kagle,	Cecil,	P. C. C. and St. L.
Summer Hill,	Allegheny,			Emil Gerry,	Loupurex,	P. C. C. and St. L.
*Union,	Washington,			W. A. Lockhart,	Houston,	P. C. C. and St. L.
National Mining Co.						
National Nos. 1 and 2,	Allegheny,	....	....	F. A. McDonald,	Morgan,	P. C. C. and St. L.
Pittsburgh-Buffalo Co.						
Hazel,	Washington,	Harris T. Booker,	Canonsburg,	William Adams,	Canonsburg,	P. C. C. and St. L.
Meadow Lands Coal Co.						
Meadow Lands No. 1,	Washington,	H. J. Nelms,	Meadow Lands,	Harry Chappel,	Meadow Lands,	P. C. C. and St. L.
Meadow Lands No. 2,				P. J. Kelley,	Arden,	P. C. C. and St. L.
Meadow Lands No. 3,				J. P. Collins,	Avella,	W. P. T.
United Coal Co.						
Rich Hill,	Washington,	John Gibson, Jr.,	Pittsburgh, First National Bank Building.	William Minford,	Meadow Lands,	P. C. L. and St. L.
Youghiogheny and Ohio Coal Co.						
†Enterprise,	Washington,	A. W. Osborne,	Cleveland, O., Leader News Building.	N. J. Lauerman,	Manifold,	P. C. L. and St. L.
Manifold Nos. 1 and 2,						
McClane Mining Co.						
Maud,	Allegheny,	Max. McClane,	Bridgeville,	Alexander McClean,	Bridgeville,	P. C. L. and St. L.
Pryor Coal Co.						
Avella No. 1,	Washington,	W. R. Turney,	Greensburg,	J. E. Ranft,	Avella,	W. P. T.

*Idle.
†New mine.

Avella Coal Co.						
Penobscot,	Washington,	W. R. Turney,	Greensburg,	Eli Rohr,	Avella, R. F. D. No. 2.	W. P. T.
Pittsburgh and Southwestern Coal Co.						
Pittsburgh and Southwestern No. 1,	Washington,	A. M. Gardner,	Avella,	A. M. Gardner,	Avella,	W. P. T.
John M. Greek and Co.						
Dandy,	Washington,	John M. Greek,	Pittsburgh,	Daniel Foster,	Canonsburg,	P. C. C. and St. L.
Waverly Coal and Coke Co.						
Waverly,	Washington,	L. C. Sarver,	Virginville, W. Va.,	L. C. Sarver,	Virginville, W. Va.,	W. P. T.
John A. Bell						
*Cedar Grove,	Washington,			S. M. Clark,	Studa,	W. P. T.
McClane Coal Co.						
‡Katie,	Allegheny,	Max. McClane,	Bridgeville,	Alexander McClean,	Bridgeville,	P. C. C. and St. L.

‡Abandoned.
*Idle.

TABLE 2.—Number of tons of coal mined and tons of coke produced, number of days worked, number of persons employed, number killed and injured, quantity of powder, dynamite and permissible explosives used, etc.

Names of Operators and Mines	County	Number of tons of coal shipped to market	Number of tons used at mines for steam and heat	Number of tons sold to local trade and used by employes	Number of tons used in manufacture of coke	Total production of coal in tons	Total production of coke in tons	Number of coke ovens	Number of days worked	Number of employes	Number of fatal accidents	Number of non-fatal accidents	Explosives			Number of horses and mules
													Number of pounds of powder used	Number of pounds of dynamite used	Number of pounds of permissible explosives used	
Pittsburgh Coal Co.																
Allison,	Washington,	229,609	5,965	422	....	235,996	....	......	202	240	....	....	5,420	700	....	24
Bridgeville,	Allegheny,	331,760	....	3,295	....	335,055	....	......	242	361	....	3	45,000	200	1,287	23
Creedmoor,	Washington,	254,208	8,713	2,428	....	265,349	....	......	205	376	1	3	17,500	500	6,000	21
Harrison,	Allegheny,	427,455	2	1,349	....	428,806	....	......	279	466	1	4	41,000	375	280	30
Laurel Hill No. 2,	Washington,	211,460	6,000	206	....	217,666	....	......	189	292	2	2	10,420	500	3,000	21
Laurel Hill No. 5,	Allegheny,	89,493	6	....	....	89,499	....	......	134	217	....	....	9,350	150	1,150	14
Midland No. 1,	Washington,	351,382	2	1,128	....	352,512	....	......	197	450	4	1	14,850	300	....	35
Midland No. 3,	Washington,	244,971	9,184	1,513	....	255,668	....	......	206	319	2	1	6,400	450	....	27
Summer Hill,	Allegheny,	129,702	15,828	57	....	145,587	....	......	198	217	....	3	17,220	....	112	17
Totals,	....	2,270,040	45,700	10,398	....	2,326,138	....	......	......	2,938	10	17	167,160	3,175	11,829	212
National Mining Co.																
National No. 1,	Allegheny,	493,907	9,891	1,478	....	505,276	....	......	240	470	1	7	36,820	....	....	31
National No. 2,	Allegheny,	464,434	9,813	1,440	....	475,687	....	......	237	496	1	1	34,380	....	....	28
Totals,	....	958,341	19,704	2,918	....	980,963	....	......	......	966	2	8	71,200	....	....	59
Pittsburgh-Buffalo Co.																
Hazel,	Washington,	522,100	18,208	6,200	....	546,508	....	......	241	565	....	5	30,000	1,200	....	....
Meadow Lands Coal Co.																
Meadow Lands No. 1,	Washington,	240,062	478	200	....	240,735	....	......	251	188	1	....	15,000	....	....	14
Meadow Lands No. 2,		171,062	14,357	....	....	185,419	....	......	263	240	1	5	*	....	....	10
Meadow Lands No. 3,		108,974	4,840	1,776	....	115,590	....	......	206	211	3	1	37,000	....	200	12
Totals,	....	520,098	19,670	1,976	....	541,744	....	......	......	639	5	6	52,000	....	200	36

*No record kept.

United Coal Co.																
Rich Hill, ...	Washington, ...	407,613	12,712	146	....	420,471	....	......	216	530	....	4	25,000	....	2,000	30
Youghiogheny and Ohio Coal Co.																
Manifold No. 1, ...	Washington, ..	393,209	17,066	1,157	....	411,432	....	......	238	324	1	4	47,500	....	3,495	28
Manifold No. 2, ...									232	184	1	1	21,075	....	1,649	17
Totals, ...	....	393,209	17,066	1,157	....	411,432	....	......	......	508	2	5	68,575	....	5,144	45
McClane Mining Co.																
Maud, ...	Allegheny, ...	158,750	....	1,250	....	160,000	....	......	205	219	....	....	30,000	200	....	10
Pryor Coal Co.																
Avella No. 1, ...	Washington, ...	121,372	1,924	208	....	123,504	....	......	268	134	1	2	5,822	....	150	5
Avella Coal Co.																
Penobscot, ...	Washington, ...	104,214	1,362	603	....	106,179	....	......	232	104	....	1	13,262	....	....	10
Pittsburgh and South-western Coal Co.																
Pittsburgh and South-western No. 1, ...	Washington	95,200	4,000	3,000	....	102,200	....	......	264	120	1	1	17,000	100	....	10
John M. Greek and Co.																
Dandy, ...	Washington, ...	46,381	2,200	....	....	48,581	....	......	200	65	....	1	*	....	....	5
Waverly Coal and Coke Co.																
Waverly, ...	Washington, ...	32,100	900	....	....	33,000	....	......	171	98	....	....	1,800	....	....	6
McClane Coal Co.																
Katie, ...	Allegheny, ...	22,893	....	300	....	23,193	....	......	160	32	....	....	4,000	....	....	....
Grand totals, ...	....	5,652,311	143,441	28,156	....	5,823,908	....	......	......	6,918	21	50	486,719	4,675	19,322	428

*No record kept.

TABLE 2—Part 2

Names of Operators	County	Number of Boilers					Locomotives				Number of steam engines of all classes	Total horse power	Number of pumps delivering water to surface	Capacity in gallons per minute	Quantity delivered to surface per minute—gallons	Number of electric dynamos	Number of air compressors
		Cylindrical	Horse power	Tubular	Horse power	Total horse power	Gasoline	Steam	Air	'Electric							
Pittsburgh Coal Co., ...	Allegheny, .. Washington, .	......	......	35	5,250	5,250	....	....	....	21	20	2,990	33	6,297	4,850	11	3
National Mining Co., ...	Allegheny, ...	......	......	8	2,400	2,400	....	....	....	10	14	1,235	15	1,200	486	6	2
Pittsburgh-Buffalo Co., ...	Washington, ...	......	......	13	2,000	2,000	....	1	....	21	5	1,150	2	400	200	4	2
Meadow Lands Coal Co., ...	Washington, ...	......	......	11	1,575	1,575	....	1	....	9	9	1,250	6	5,560	3,480	5	4
United Coal Co., ...	Washington, ...	......	......	6	750	750	....	....	....	4	6	619	4	1,150	1,150	2	2
Youghiogheny and Ohio Coal Co., ...	Washington, ...	......	......	10	1,500	1,500	....	....	....	5	7	2,775	3	400	250	2	1
McClane Mining Co., ...	Allegheny, ...	......	......	....	....	....	....	....	....	1	......	....	....	....	....	2	......
Pryor Coal Co., ...	Washington, ...	......	......	2	300	300	....	....	....	2	1	250	3	200	200	1	......
Avella Coal Co., ...	Washington, ...	......	......	1	150	150	....	....	....	1	1	200	2	68	68	1	......
Pittsburgh and Southwestern Coal Co., ...	Washington, ...	2	275	....	....	275	....	....	....	....	3	300	1	500	100	......	1
John M. Greek and Co., ...	Washington, ...	......	......	4	350	350	....	....	....	....	5	300	3	105	50	......	2
Waverly Coal and Coke Co.,	Washington, ...	......	......	3	450	450	....	....	....	....	4	325	5	500	300	1	1
Totals, ...	....	2	275	93	14,725	15,000	....	2	....	74	75	11,394	77	16,380	11,134	35	18

TABLE 3.—Number of Each Class of Employes Inside and Outside of Mines

Names of Operators	County	Inside												Outside								Grand total inside and outside
		Mine foremen	Assistant mine foremen	Fire bosses	Miners	Machine runners	Machine loaders	Machine scrapers	Drivers and runners	Doorboys and helpers	Company men	All other employes	Total inside	Superintendents	Foremen	Blacksmiths and carpenters	Engineers and firemen	Coke employes	Bookkeepers and clerks	All other employes	Total outside	
Pittsburgh Coal Co., ...	Allegheny, Washington,	9	16	30	445	119	1,385	117	162	41	89	187	2,600	4	9	39	24	....	13	249	338	2,938
National Mining Co., ..	Allegheny, ...	2	5	11	133	35	435	35	51	9	16	71	823	1	2	23	11	....	5	101	143	966
Pittsburgh-Buffalo Co., .	Washington, ...	1	3	7	56	28	274	28	38	....	25	38	498	1	2	6	14	....	5	39	67	565
Meadow Lands Coal Co.,	Washington, ...	3	2	5	61	23	368	23	46	14	16	26	587	3	1	12	12	....	3	21	52	639
United Coal Co., ...	Washington, ...	1	4	5	80	30	222	30	30	3	70	....	475	1	1	5	6	....	2	40	55	530
Youghiogheny and Ohio Coal Co., ...	Washington, ...	2	5	5	106	19	196	19	34	4	....	55	445	1	1	10	15	....	2	34	63	508
McClane Mining Co., ..	Allegheny, ...	1	....	....	10	10	150	10	10	1	6	....	198	1	1	5	....	....	2	12	21	219
Pryor Coal Co., ...	Washington, ...	1	....	....	12	6	73	6	5	....	15	....	118	1	....	2	2	....	1	10	16	134
Avella Coal Co., ...	Washington, ...	1	....	....	5	5	59	5	7	....	5	....	87	1	....	2	2	....	2	10	17	104
Pittsburgh and Southwestern Coal Co., ...	Washington, ...	1	....	1	8	9	60	9	7	1	5	....	101	1	2	2	3	....	1	10	19	120
John M. Greek and Co.,	Washington, ...	1	....	....	9	4	30	4	5	....	3	....	56	....	....	1	3	....	1	4	9	65
Waverly Coal and Coke Co., ...	Washington, ...	1	....	....	12	8	40	8	7	....	6	....	82	1	....	2	2	....	....	11	16	98
McClane Coal Co., ...	Allegheny, ...	1	....	....	16	1	6	1	2	....	2	....	29	....	....	1	....	....	....	2	3	32
Totals, ...	....	25	35	64	953	297	3,318	295	404	73	258	377	6.099	16	19	110	94	....	37	543	819	6,918

Table 3—Part 2

Names of Operators	County	Average Number of Days Worked												
		January	February	March	April	May	June	July	August	September	October	November	December	Total
Pittsburgh Coal Co.,	Allegheny, Washington,	19	14	10	13	21	22	23	23	21	19	17	4	206
National Mining Co.,	Allegheny,	23	18	22	14	21	20	21	22	20	18	17	22	238
Pittsburgh-Buffalo Co.,	Washington,	22	17	13	14	23	24	26	23	21	23	21	14	241
Meadow Lands Coal Co.,	Washington,	21	16	11	17	25	24	24	25	22	22	20	12	289
United Coal Co.,	Washington,	25	13	11	12	23	21	24	21	20	20	18	8	216
Youghiogheny and Ohio Coal Co.,	Washington,	23	18	24	15	25	21	25	22	23	19	11	9	235
McClane Mining Co.,	Allegheny,	12	8	10	5	20	22	22	23	21	23	20	19	205
Pryor Coal Co.,	Washington,	25	10	16	20	25	25	26	26	25	27	22	21	268
Avella Coal Co.,	Washington,	7	12	15	16	23	23	25	22	20	27	22	20	232
Pittsburgh and Southwestern Coal Co.,	Washington	26	9	20	22	26	23	25	21	25	27	23	17	264
John M. Greek and Co.,	Washington,	16	5	14	15	25	23	23	23	18	10	12	16	200
Waverly Coal and Coke Co.,	Washington,	......	......	......	15	18	20	25	24	23	22	24	......	171
McClane Coal Co.,	Allegheny,	20	20	22	12	19	20	17	16	10	4	......	......	160

TABLE 4.—Fatal Accidents Inside and Outside of Mines

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Number of widows	Number of orphans	Name of Mine	County	Nature and Cause of Accident in Brief
Jan. 8	John Petrosky, ...	Russian, ...	Miner, ...	28	M.	1	4	Midland No. 3,..	Washington,....	Fatally injured by fall of roof while drawing last post in pillar.
March 13	John Robson, ...	English, ...	Machine runner,	31	M.	1	3	Harrison, ...	Allegheny,......	Electrocuted. The insulation of cable on short wall machine became worn through, which charged machine 500 volts.
20	Thomas Decarlo, ...	Italian, ...	Driver, ...	19	S.	....	....	Laurel Hill No. 2,	Washington,....	Instantly killed. Neck broken by falling in front of loaded car on which he was riding on entry.
May 1	Reuben Wasler, ...	American, ..	Loader, ...	76	M.	1	....	Meadow Lands No. 1,	Washington,....	Fatally injured. Shocked by trolley wire and fell along haulage road and empty trip ran over his leg and arm.
5	Anton Veedmoor, ...	Austrian, ..	Loader, ...	74	S.	....	....	Creedmoor, ...	Washington,....	Fatally injured by fall of slate at face of room while shoveling coal.
14	Joe Buiwid, ...	Lithuanian,	Loader, ...	25	S.	....	....	National No. 2,..	Allegheny,......	Killed by fall of slate while shoveling coal from pillar.
22	Andy Sabo, ...	Hungarian, .	Miner, ...	37	M.	1	3	Laurel Hill No. 2,	Washington,....	Instantly killed by fall of roof on room roadway while pushing empty car in.
	Mike Wargo, ...	Hungarian, .	Motorman, ..	29	S.	....	....	Manifold No. 2,..	Washington,....	Fatally injured by fall of slate while on motor hauling trip out.
June 16	Peter Berneardo, ...	Italian, ...	Loader, ...	19	S.	....	....	Meadow Lands No. 3,	Washington,....	Killed by fall of slate at face of room while shoveling coal.
24	James F. Frain, ...	American, ..	Loader, ...	16	S.	....	....	National No. 1,..	Allegheny,......	Instantly killed by fall of slate at face of room while knocking coal.
July 3	Marcus Blaharcus, ...	Greek, ...	Miner, ...	48	M.	1	4	Manifold No. 1,..	Washington,....	Instantly killed by fall of roof while working on pillar.
5	Louis M. McCartney,	American, ..	Driver, ...	34	M.	1	2	Midland No. 1,..	Washington,....	Electrocuted. Was riding on motor guiding trolley pole when his head came in contact with trolley wire, 500 volts. Outside.
10	August Lesoski, ...	Polish, ...	Miner, ...	17	S.	....	....	Midland No. 3,..	Washington,....	Instantly killed by fall of roof while working on pillar.
15	John Capilio, ...	Russian, ...	Loader, ...	48	M.	1	5	Midland No. 1,..	Washington,....	Fatally injured. Back broken by fall of slate at face of room while shoveling coal.

TABLE 4—Continued

Date of accident		Name of Person	Nationality	Occupation	Age	Married or single	Number of widows	Number of orphans	Name of Mine	County	Nature and Cause of Accident in Brief
Aug.	8	John Klasitz, ...	Polish,......	Loader, ...	26	S.	....	....	Pittsburgh and Southwestern No. 1,	Washington,....	Instantly killed by fall of roof at face of room while measuring for post.
	19	Tony Valmasoi, ...	Italian,.....	Loader, ...	47	M.	1	5	Meadow Lands No. 2,	Washington,....	Killed by fall of roof at face of room while shoveling coal.
	26	Mike Baloga, ...	Slavonian,..	Loader, ...	22	S.	....	....	Meadow Lands No. 3,	Washington,....	Electrocuted. Came in contact with machine wires of 550 volts, along entry while passing around car on the tight side.
	29	Joseph White, ...	Russian, ...	Loader, ...	38	M.	1	5	Midland No. 1,..	Washington,....	Electrocuted. Came in contact with machine wire, 550 volts, along entry when his light went out.
Sept.	12	John Oriotto, ...	Italian,.....	Miner, ...	33	S.	....	....	Midland No. 1,..	Washington,....	Instantly killed by fall of roof at face of pillar while shoveling coal.
Oct.	23	Samuel Kunch, ...	American,..	Machine scraper,	22	M.	1	....	Meadow Lands No. 3,	Washington,....	Fatally injured at face of room. The chain caught his trousers and pulled his leg into frame of machine injuring him so badly he died same day.
Dec.	30	John Munsin, ...	Polish,......	Loader, ...	36	M.	1	5	Avella No. 1, ..	Washington,....	Instantly killed by fall of slate at face of room while shoveling coal.

TABLE 5.—Non-Fatal Accidents Inside and Outside of Mines

Date of accident		Name of Person	Nationality	Occupation	Age	Married or single	Name of Mine	County	Nature and Cause of Accident in Brief
Jan.	8	Enginie DeJohn, ...	Italian, ...	Driver, ...	24	S.	National No. 1, ...	Allegheny, ...	Collar bone fractured. Squeezed between car and post.
	22	Jerome Mouret, ...	French, ...	Miner, ...	40	M.	National No. 1, ...	Allegheny, ...	Abrasion of arm and cut under chin by fall of roof in pillar.
Feb.	6	John Hously, ...	English, ...	Loader, ...	45	M.	Harrison, ...	Allegheny, ...	Contusions of back and ribs by fall of slate at face of room.
	11	Steve Bisi, ...	Greek, ...	Miner, ...	40	M.	Rich Hill, ...	Washington, ...	Compound fracture of leg and back sprained by fall of slate at face of pillar.
	12	Jackoma Seariot, ...	Italian, ...	Loader, ...	28	M.	Meadow Lands No. 2,	Washington, ...	Right leg broken and hip dislocated by fall of slate at face of room.
	24	Andy Miller, ...	Austrian, ..	Miner, ...	33	M.	Rich Hill, ...	Washington, ...	Leg fractured by fall of slate at face of pillar.
March	1	John Vassco, ...	Slavonian, ..	Loader, ...	37	M.	Meadow Lands No. 2,	Washington, ...	Ankle dislocated by fall of slate at face of room.
	8	Mike Kulines, ...	Russian, ...	Loader, ...	33	M.	Bridgeville, ...	Allegheny, ...	Leg fractured by fall of coal. He was slabbing entry for new side track.
	14	Samuel Boliskie, ...	Lithuanian,	Driver, ...	18	S.	National No. 1, ...	Allegheny, ...	Lacerations of face and nose broken by kick of mule.
April	7	Henry Roth, ...	Hungarian, .	Miner, ...	36	M.	National No. 1, ...	Allegheny, ...	Broken wrist and lacerations of scalp by fall of roof at pillar work.
	10	J. L. Hartford, ...	American, ..	Motorman, ...	30	M.	Hazel, ...	Washington, ...	Wrist broken when he ran motor into some steel cars.
	12	Andy Horwat, ...	Austrian, ..	Loader, ...	42	M.	Harrison, ...	Allegheny, ...	Compound fracture of right arm by fall of slate at face of room.
	16	John Waterman, ...	English, ...	Timberman, ...	44	M.	Hazel, ...	Washington, ...	Dislocated shoulder and three ribs broken by fall of roof while timbering along haulage road.
	27	John Solosky, ...	Polish, ...	Loader, ...	36	M.	Hazel, ...	Washington, ...	Rib broken by being squeezed between car and brattice in his room.
May	6	Joseph Matturi, ...	Italian, ...	Machine runner, ..	32	M.	Creedmoor, ...	Washington, ...	Leg broken in two places by being caught by machine swinging around when front jack slipped.
		Anton Roosik, ...	Austrian, ..	Loader, ...	37	M.	National, ...	Allegheny, ...	Small bones broken in foot by fall of slate at face of room.

TABLE 5—Continued

Date of accident		Name of Person	Nationality	Occupation	Age	Married or single	Name of Mine	County	Nature and Cause of Accident in Brief
May	6	George Savisky, ...	Russian, ...	Miner, ...	30	S.	Summer Hill, ...	Allegheny,......	Leg and ribs bruised by fall of roof at face of pillar.
	10	Fred Davis, ...	English, ...	Loader, ...	17	S.	Pittsburgh and Southwestern No. 1,	Washington,....	Skull fractured by fall of slate at face of room.
		Samuel Spirvak, ...	Russian, ...	Loader, ...	21	S.	Avella No. 1, ...	Washington,....	Ankle badly bruised by being caught between switch and car he was hauling.
	17	Frank Welas, ...	Lithuanian,	Loader, ...	22	S.	Bridgeville, ...	Allegheny,......	Leg fractured and face injured by fall of roof at face of room.
	22	John Shultz, ...	Hungarian, .	Miner, ...	53	M.	Laurel Hill No. 2,....	Washington,....	Leg and shoulder bruised by fall of roof on room roadway.
	26	Peter Kerna, ...	Slavonian,..	Loader, ...	26	M.	Manifold No. 1, ...	Washington,....	Leg fractured by fall of draw slate in room break-through.
June	16	O. S. Rathburne. . .	American,..	Miner, ...	40	M.	Rich Hill, ...	Washington,....	Femur broken by fall of roof at pillar work.
	21	Peter Cole, ...	Russian, ...	Loader, ...	51	M.	Harrison, ...	Allegheny,......	Leg fractured by fall of roof at face of room.
July	2	Mathew Martin, . .. William Gardner, ..	Italian, ... Scotch, ...	Pumpman, ... Fire boss, ...	39 46	M. M.	Meadow Lands No. 2,	Washington,..	Lacerations of head. Lacerations of head and neck and back bruised by fall of roof while riding on motor.
	19	Andy Stine, ...	Austrian, ..	Machine runner,..	29	M.	Harrison, ...	Allegheny,......	Leg fractured by being caught between machine truck and door while moving machine.
	22	Victor DeDominick, ..	Italian, ...	Driver, ...	21	S.	National No. 1, ...	Allegheny,......	Forearm fractured by being caught between car and post in room.
Aug.	4	George Shilinosky, ...	Polish, ...	Machine runner,..	28	M.	Hazel, ...	Washington,....	Ribs broken and lacerations on body by fall of coal at face while cutting room.
		Emil Cragit, ...	French, ...	Miner, ...	47	M.	Midland No. 1, ...	Washington,....	Back injured by fall of slate at face of pillar.
	14	John Doherty, ...	Irish, ...	Laborer, ...	29	S.	Creedmoor, ...	Washington,....	Severe cut on left leg by slipping against moving car on entry.
	18	Joseph Rozance, ...	Austrian, ...	Machine runner,..	26	M.	Creedmoor, ...	Washington,....	Severe cut on large toe by machine slipping off skid and onto his foot.
	23	James Thompson, Jr...	English, ...	Loader, ...	31	S.	National No. 2, ...	Allegheny,......	Lacerated wounds of scalp, nose and forehead by fall of slate at face of entry.

Aug.	27	Paul Maribell, ...	Italian, ...	Miner, ...	27	M.	Midland No. 3, ...	Washington,....	Leg fractured by fall of roof at pillar work.
Sept.	2	Nick Samock, ...	Austrian, ...	Miner, ...	55	S.	Penobscot.	Washington,....	Leg fractured by fall of slate at face of pillar.
	8	George Lar, ...	Polish, ...	Driver, ...	23	S.	Manifold No. 2, ...	Washington,....	Shoulder broken by being caught between car and rib on tight side when light went out.
	20	G. J. Moffit, ...	American,...	Laborer, ...	52	M.	Laurel Hill No. 2,....	Washington,....	Laceration of leg by moving empty trip.
	24	Dan Cardin, ...	Polish, ...	Loader	39	S.	Summer Hill, ...	Allegheny,.. ...	Spinal cord injured by being squeezed between empty car and face of room. Was guiding car into place and evidently slipped or stumbled.
	29	Jacob Biegun, ...	Polish, ...	Miner, ...	32	M.	Manifold No. 1, ...	Washington. ..	Compound fracture of right leg by fall of slate at face of pillar.
	30	George Urncovik, ...	Austrian, ...	Loader, ...	32	M.	Manifold No. 1, ...	Washington,....	Skull fractured by fall of slate at face of entry.
Oct.	13	Thomas Tusinsky, ...	Polish, ...	Loader, ...	53	M.	Summer Hill, ...	Allegheny.	Ankle fractured by fall of slate at face of room.
	20	Arthur Hasson, ...	Irish, ...	Motorman, ...	35	M.	Hazel, ...	Washington,...	Leg crushed by being squeezed between motor and empty trip which he was coupling together.
	28	Charles Funka, ...	Slavonian, .	Driver, ...	17	S.	Manifold No. 1, ...	Washington,....	Injured internally. While attempting to set brake on car on which he was riding, he slipped off car onto tight side and was squeezed between rib and car.
Nov.	10	John Trelz, ...	German, ...	Pumpman, ...	60	M.	Meadow Lands No. 3,	Washington,....	Arm amputated by being caught on gear wheels of electric pump.
	25	Robert Chester, ...	American,...	Miner, ...	51	M.	Bridgeville, ...	Allegheny,......	Foot crushed by fall of slate at face of pillar. Had to be amputated.
Dec.	2	Liberatts Ciallella, ..	Italian, ...	Miner, ...	22	S.	National No. 1, ...	Allegheny,......	Injured internally by fall of slate at face of pillar.
	9	Joseph Ranft, ...	American, ..	Superintendent, ..	45	M.	Avella No. 1, ...	Washington,....	Back injured by fall of roof on entry.
	10	Peter Dalro, ...	Italian, ...	Loader, ...	32	M.	Dandy, ...	Washington,....	Two toes amputated by fall of slate in break-through in room.
	18	Louis Breidenberger, .	German, ...	Laborer, ...	42	S.	Rich Hill, ...	Washington,....	Leg fractured and arm dislocated by fall of roof while drawing posts in pillar work.
	23	Sam Marcena, ...	Italian, ...	Loader, ...	35	M.	Meadow Lands No. 2,.	Washington,....	Leg fractured by fall of slate at face of room.

CONDITION OF MINES

PITTSBURGH COAL COMPANY

Allison.—Ventilation good in some portions; fair in others. Drainage good.

Bridgeville.—Ventilation and drainage good. Electric wires protected in excellent manner.

Bower Hill.—Idle.

Creedmoor.—Ventilation good in some portions, but a little weak in others. Drainage good, except several places in the east butts.

Harrison.—Ventilation insufficient in several of the splits and just fair in others. A large new Jeffrey fan has been installed at the mine and is ready for operation as soon as electric power lines are installed. Drainage good in some parts, but in many places the mine is wet and muddy on account of the flatness of the seam and numerous local swamps.

Laurel Hill No. 2.—Ventilation and drainage good.

Laurel Hill No. 5.—Ventilation and drainage good.

Midland No. 1.—Ventilation very good. Drainage good, except in the old face entries to the left of the tunnel, which are wet and muddy.

Midland No. 2.—Idle.

Midland No. 3.—Ventilation good in some portions, but the quantity is insufficient in several of the splits. I understand an additional fan is being installed. Drainage good, except in old entries to left of main tunnel, which are very wet and muddy.

Montour Nos. 1, 2 and 4.—New shaft openings just down to the coal.

Ridgeway.—Idle.

Summer Hill.—Ventilation and drainage good.

Union.—Idle.

NATIONAL MINING COMPANY

National No. 1.—Ventilation and drainage very good. The air shaft back in the workings, used as an intake, has been concreted to keep it from freezing in the winter. Water lines have been installed throughout mine for sprinkling and keeping dust in damp condition.

National No. 2.—Ventilation and drainage good. Coal dust kept in damp condition by sprinkling with hose and sprinkling cars. Electric wires are protected at both mines in excellent manner.

PITTSBURGH-BUFFALO COMPANY

Hazel.—Ventilation good, except in the 4th and 9th splits where it is considerably below the requirements. Drainage good. Coal dust kept in damp condition by use of exhaust steam, sprinkling lines, sprayers and improved sprinkling car.

MEADOW LANDS COAL COMPANY

Meadow Lands No. 1.—Ventilation and drainage good.

Meadow Lands No. 2.—Ventilation only fair; not being checked to the working faces as it should be. Airways in poor condition from falls. Drainage fair. Motor road requires considerable cleaning up.

Meadow Lands No. 3.—Ventilation good, except that in the first split the quantity was insufficient. Mine foreman informs me that this has been remedied. Ventilation is being arranged so that all electric wires are installed in the intake air. Drainage fair.

UNITED COAL COMPANY

Rich Hill.—Ventilation insufficient in several of the splits on my last inspection and was not being kept up to the faces. The mine is wet and has numerous local swamps which make the road ways in many of the entries very wet and muddy.

YOUGHIOGHENY AND OHIO COAL COMPANY

Enterprise.—A new shaft is being sunk at this mine which has been idle for several years.

Manifold No. 1.—Ventilation and drainage very good. Good discipline maintained. Coal dust kept in damp condition by means of sprinkling lines and compressed air sprinkling car.

Manifold No. 2.—Ventilation good, but needs to be improved in the second and third splits. Drainage good. Coal dust kept in damp condition by means of sprinkling lines and compressed-air sprinkling car.

McLANE MINING COMPANY

Maud.—Ventilation insufficient in the first split. Drainage fair.

PRYOR COAL COMPANY

Avella No. 1.—Ventilation good. Drainage needs to be improved in several entries. There is some slate along the roadways which should be removed.

AVELLA COAL COMPANY

Penobscot.—Ventilation and drainage good.

PITTSBURGH AND SOUTHWESTERN COAL COMPANY

Pittsburgh and Southwestern No. 1.—Ventilation and drainage good.

JOHN M. GREEK AND COMPANY

Dandy.—Ventilation at face of workings insufficient. Drainage poor. In several places the water is over the rails and the roadways are muddy in numerous places.

WAVERLY COAL AND COKE COMPANY

Waverly.—Ventilation insufficient. A new fan is to be installed. Drainage needs to be improved at several places.

McCLANE COAL COMPANY

Katie.—Abandoned latter part of year. Coal all mined out.

IMPROVEMENTS

PITTSBURGH COAL COMPANY

Creedmoor.—Built oil house, hoist house, two pump houses, all fireproof, 1 brick overcast and 78 brick stoppings. Outside: Built a 1,200 barrel water tank and a trestle over county road for new slate dump. Installed one 5 H. P. electric hoist at bottom of shaft to pull empties, one 5 by 6 Smith Vale triplex pump, one 2½ by 2 centrifugal pump and 2,200 feet of 3 inch pipe for same. Extended motor roads 3,700 feet with 40 pound iron rails.

Laurel Hill No. 2.—Built one brick pump house, 1 brick oil house and 79 brick stoppings. Installed 2,300 feet of 0000 grooved trolley wire, 4,400 feet of 0000 machine wire, one 3 by 4 centrifugal pump, one 19A Jeffrey cutting machine, one 28A short wall machine, one 15 H. P. electric hoist at bottom, one electric hoist in butt entry and laid 3,000 feet of motor road with 40 pound rails.

Laurel Hill No. 5.—Built 2 brick pump houses, 1 brick fan house and 115 brick stoppings. Installed 8,700 feet of 0000 feed wire, 1 electric hoist, eight 19A Jeffrey mining machines, one 28A short wall machine, one 8 foot Stine fan and automatic switchboard, two 3 by 4 centrifugal pumps, two 2½ by 3 Deming triplex pumps, 1 general electric locomotive and 1 Baldwin and Westinghouse electric locomotive.

NATIONAL MINING COMPANY

National No. 1.—Built 176 brick stoppings, 1 brick overcast, 1 brick tool house, 1 new pump house. Laid 10,622 feet of motor road, with 25, 40 and 60 pound iron rails, and lined the airshaft with concrete.

National No. 2.—Built 4 brick pump houses, 129 brick stoppings, 1 brick tool house. Laid 14,330 feet of motor road with 25 and 40 pound iron rails. Installed new pump.

PITTSBURGH-BUFFALO COMPANY

Hazel.—Built brick pump house; extended endless rope haulage system 4,400 feet and re-lined the airshaft.

MEADOW LANDS COAL COMPANY

Meadow Lands No. 2.—Installed one 300 K. W. 550 V. D. C. motor generator set; laid 5,000 feet of motor road with 40 pound iron rails. Installed 5,000 feet of trolley wire, 4,000 feet of 0000 feed line and 6 electric pumps. Built 50 brick stoppings, 1 brick overcast, 3 brick pump houses and 34 new tenement houses. Extended railroad siding 2,000 feet above the tipple.

Meadow Lands No. 3.—Installed 2 electric motors and one 150 K. W. generator belt driver, with steam engine, and 5 electric pumps. Built 30 brick stoppings.

YOUGHIOGHENY AND OHIO COAL COMPANY

Manifold No. 1.—Built 2 permanent overcasts, all stoppings of concrete, a new motor house, a water ring in air shaft. Extended telephone system and motor haulage 1,500 feet. Installed one 13-ton Baldwin Westinghouse locomotive.

Manifold No. 2.—Installed filtration plant and 1 side dump electric slate car, capacity 10 tons outside. Extended motor road 3,000 feet. All stoppings were built of concrete.

McCLANE MINING COMPANY

Maud.—Built 4,800 foot railroad siding, steel tipple, with elevating endless chain haul, standard scales, screens, etc. Built brick building, containing converting station and transforming room in basement, with office rooms on second story and a building containing blacksmith and machine shops. Inside: Two permanent overcasts were built and two concrete tunnels constructed under public road. Installed electric motor and erected wire; installed eight breast-type cutting machines, three continuous cutting type and two motor generator sets having a combined capacity of 365 H. P.

PRYOR COAL COMPANY

Avella No. 1.—Built one brick overcast and installed one electric pump.

AVELLA COAL COMPANY

Penobscot.—Installed one Jeffrey short wall mining machine and one tubular boiler, 125 H. P. Built one permanent overcast and 36 tile stoppings.

PITTSBURGH AND SOUTHWESTERN COAL COMPANY

Pittsburgh and Southwestern No. 1.—Built 14 permanent stoppings and one permanent overcast. Enlarged the embankment around the mine entrance to insure greater safety from high water. Extended endless rope haulage system 2,200 feet and enlarged the airways.

WAVERLY COAL AND COKE COMPANY

Waverly.—Installed two 150 H. P. tubular boilers, one 150 K. W. 250 volt generator, directly connected to Ridgway engine, three Goodman short wall mining machines, one 10-ton Jeffrey locomotive, two 5 by 6 American electric pumps. Built one tile power plant, 44 by 86, and two permanent overcasts. Repaired incline and laid 40 pound iron rails, and electrified mine.

PROSECUTIONS FOR VIOLATION OF THE MINING LAWS

October 24.—Information was made before S. P. McCaffrey, Justice of the Peace, against G. J. Moffett who had been employed at the Laurel Hill No. 5 mine of the Pittsburgh Coal Company, but had been discharged. Charge: Entering a mine without permission from the superintendent. Defendant is a fugitive from justice.

March 12.—Information was made against Joseph Veechie, a loader at the Meadow Lands No. 2 mine of the Meadow Lands Coal Company, before John F. Carmichael, Justice of the Peace. Charge: Passing a danger board. Witnesses disappeared and under advice of attorney, when defendant promised faithfully to obey the law in the future, the case was withdrawn.

MINE FOREMEN'S, ASSISTANT MINE FOREMEN'S AND FIRE BOSSES' EXAMINATIONS

The annual examination of applicants for certificates of qualification as mine foremen, assistant mine foremen and fire bosses was held in Moose Hall, Bridgeville, May 6, 7 and 8. The Board of Examiners was composed of P. J. Callaghan, Inspector; S. P. McCaffrey, Superintendent, and Thomas Coogan, Miner.

There were 40 applicants for certificates of qualification as mine foremen and assistant mine foremen and 61 applicants for certificates of qualification as fire bosses. The following persons passed a satisfactory examination and were granted certificates:

MINE FOREMEN

First Grade

Patrick F. Toohey, Cuddy; David J. McFall, Canonsburg; William Powers, Morgan; George Steinheiser, McDonald; Marcus A. Sessi, Meadow Lands; Joseph H. Kovacsik, Avella; Samuel H. Cox, Bridgeville.

ASSISTANT MINE FOREMEN

Peter Bulger, Cuddy; Joseph Breckons, Arden; Orestes S. Rathburn, Washington; Martin P. Lally, Morgan; William Davidson, McDonald; Matthew Dixon, Lee Barnes, Cecil; Walter Drury, Joseph Shimmel, Manifold; Henry Blackledge, Westland; Charles Alderson, Henry Shaw, David Douglas, Houston; William L. Sullivan, Bridgeville.

FIRE BOSSES

William Hitchcock, Richard H. Bunney, John McGarrigle, David O. Smith, Canonsburg; Robert G. Holland, Joseph H. Edwards, Frank Supan, Bridgeville; George T. Goff, George H. Kelvington, Joseph Alderson, Houston; Ernest Bonassi, John Konecheck, Avella; John J. O'Neil, John A. Ryan, Morgan; Alphonse Gusteau, Leopold Aubrey, Samuel Hancock, Cecil; John Rowbottom, Bartley Lyons, Cuddy; Walter Drury, George Hebner, Manifold; Oscar Lowther, Westland; William F. Lindsley, Simeon Ball, Jr., John Luxbacher, William Smith, Beadling; William P. Friday, Carnegie; Andrew Fielder, Meadow Lands.

TWENTY-SEVENTH DISTRICT

FAYETTE AND WESTMORELAND COUNTIES

Belle Vernon, Pa., February 18, 1914.

Hon. James E. Roderick, Chief of Department of Mines:

Sir: I have the honor to transmit herewith the annual report of the Twenty-seventh Bituminous District for the year ending December 31, 1913, in compliance with the provisions of the Bituminous Mine Law.

Respectfully submitted,
HARRY PHYTHYON, Inspector.

SUMMARY OF STATISTICS

Number of mines,	15
Number of mines in operation,	15
Number of tons of coal shipped to market,	4,906,027
Number of tons used at mines for steam and heat,	66,868
Number of tons sold to local trade and used by employes,	11,541
Number of tons used in the manufacture of coke,	22,700
Number of tons of coal produced,	5,007,136
Number of tons of coke produced,	15,131
Number of coke ovens,	42
Number of coke ovens in operation,	42
Number of tons of coal produced by pick mining,	1,171,209
Number of tons produced by compressed air machines,	....
Number of tons produced by electrical machines,	3,835,927
Number of persons employed inside of mines,	4,286
Number of persons employed outside, including coke workers,	553
Number of persons employed at manufacture of coke,	9
Number of fatal accidents inside of mines,	9
Number of fatal accidents outside,	1
Number of non-fatal accidents inside of mines,	35
Number of non-fatal accidents outside,	3
Number of tons of coal produced per fatal accident inside,	556,348
Number of tons produced per fatal accident outside,	5,007,136
Number of tons produced per fatal accident inside and outside,	500,714
Number of persons employed per fatal accident inside,	476
Number of persons employed per fatal accident outside,	553
Number of persons employed per fatal accident inside and outside,	484
Number of persons employed per non-fatal accident inside,	122
Number of persons employed per non-fatal accident outside,	184
Number of persons employed per non-fatal accident inside and outside,	127
Number of wives made widows,	5
Number of children made orphans,	17
Number of steam locomotives used inside of mines,	....
Number of steam locomotives used outside,	....
Number of compressed air locomotives used inside,	....
Number of compressed air locomotives used outside,	....
Number of electric motors used inside,	42
Number of electric motors used outside,	....
Number of gasoline locomotives used inside,	....
Number of fans in use,	19
Number of furnaces in use,	....
Number of gaseous mines in operation,	11
Number of non-gaseous mines in operation,	4
Number of new mines opened,	1
Number of old mines abandoned,	1

TABLE A

PRODUCTION OF COAL

Names of Operators	Tons
Monongahela River Consolidated Coal and Coke Company,	2,169,947
Pittsburgh Coal Company,	1,522,155
Henderson Coal Company,	554,343
Naomi Coal Company,	354,435
Warner-Youghiogheny Coal Company,	348,318
Belle Vernon Coke Company,	57,938
Total,	5,007,136

Production by Counties	
Fayette,	3,384,266
Westmoreland,	1,622,870
Total,	5,007,136

TABLE B.—Fatal and non-fatal accidents inside and outside of mines; number of tons of coal produced per accident; number of persons employed; number employed per accident

Names of Operators	Fatal Accidents			Non-Fatal Accidents			Tons of coal produced per fatal accident inside	Tons of coal produced per non-fatal accident inside	Number of employes inside	Number of employes outside	Total number of employes	Number of employes inside per fatal accident	Number of employes outside per fatal accident	Number of employes inside per non-fatal accident	Number of employes outside per non-fatal accident
	Inside	Outside	Total	Inside	Outside	Total									
Monongahela River Consolidated Coal and Coke Co.,	3	......	3	6	......	6	723,316	361,658	1,707	191	1,898	569	....	284	....
Pittsburgh Coal Co.,	3	......	3	11	1	12	507,385	138,371	1,566	228	1,794	522	....	142	228
Henderson Coal Co.,	1	......	1	11	2	13	554,343	50,395	379	44	423	379	....	35	22
Naomi Coal Co.,	1	1	2	3	......	3	354,435	118,145	271	45	316	271	45	90	....
Warner-Youghiogheny Coal Co.,	1	......	1	4	......	4	348,318	87,079	304	29	333	304	....	76	....
Miscellaneous Companies,	......	......	......	......	......	......	....	....	59	16	75	....	....	....	....
Totals and averages for district, ...	9	1	10	35	3	38	556,348	143,061	4,286	553	4,839	476	553	122	184

TABLE C.—Classification of Fatal Accidents Inside and Outside of Mines

	Months													
	January	February	March	April	May	June	July	August	September	October	November	December	Totals	Percentages
Causes of Accidents Inside														
Falls of coal,	....	....	....	....	....	....	....	1	....	1	....	....	2	22.22
Falls of slate,	....	....	....	1	....	2	....	....	....	1	....	....	4	44.45
Falls of roof,	....	....	....	....	....	1	....	....	1	....	....	....	2	22.22
Mine cars,	....	....	...	....	....	....	....	....	....	....	1	....	1	11.11
Totals,	....	....	....	1	....	3	....	1	1	2	1	....	9	100.00
Causes of Accidents Outside														
Cars,	....	....	....	....	....	....	....	....	....	....	1	....	1	100.00
Totals,	....	....	....	....	....	....	....	....	....	....	1	....	1	100.00
Grand totals inside and outside,	....	....	....	1	....	3	....	1	1	2	2	....	10	......

TABLE D.—Classification of Non-Fatal Accidents Inside and Outside of Mines

	Months													
	January	February	March	April	May	June	July	August	September	October	November	December	Totals	Percentages
Causes of Accidents Inside														
Falls of coal,	....	4	1	....	1	1	1	....	....	1	2	2	13	37.14
Falls of slate,	....	....	....	....	....	2	....	1	....	2	1	....	6	17.14
Falls of roof,	1	....	1	1	....	....	....	1	....	....	1	1	6	17.14
Mine cars,	....	1	....	2	2	2	....	....	2	....	....	....	9	25.72
Struck by piece of coal,	....	....	....	....	....	....	....	....	....	1	....	....	1	2.86
Totals,	1	5	2	3	3	5	1	2	2	4	4	3	35	100.00
Causes of Accidents Outside														
Cars,	....	2	....	....	1	....	....	....	....	....	....	....	3	100.00
Totals,	....	2	....	....	1	....	....	....	....	....	....	....	3	100.00
Grand totals inside and outside,	1	7	2	3	4	5	1	2	2	4	4	3	38	......

TABLE E.—Occupations of Persons Killed or Fatally Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
Inside													
Miners,	....	....	....	1	....	3	....	....	1	1	....	....	6
Machine loaders,	....	....	....	....	....	....	....	1	....	1	....	....	2
Motormen,	....	....	....	....	....	....	....	....	....	....	1	....	1
Totals,	....	...	....	1	....	3	....	1	1	2	1	....	9
Outside													
Laborers,	....	....	....	....	....	....	....	....	....	....	1	....	1
Totals,	....	....	....	....	....	....	....	....	....	....	1	....	1
Grand totals inside and outside,	....	....	....	1	....	3	....	1	1	2	2	....	10

TABLE F.—Occupations of Persons Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
Inside													
Mine foremen,	...	....	....	....	....	1	....	....	....	....	....	....	1
Miners,	...	2	2	....	1	2	1	1	...	1	1	....	11
Machine loaders,	1	2	....	1	2	1	....	1	....	1	3	1	13
Machine scrapers,	...	....	....	....	....	....	....	....	....	1	....	2	3
Drivers and runners,	....	....	....	2	....	1	....	....	1	....	....	....	4
Snappers,	...	....	....	....	....	....	....	....	1	....	....	....	1
Laborers,	....	1	....	....	....	....	....	....	....	1	....	....	2
Totals,	1	5	2	3	3	5	1	2	2	4	4	3	35
Outside													
Laborers,	....	2	....	....	1	....	....	....	....	....	....	....	3
Totals,	....	2	....	....	1	....	....	....	....	....	....	....	3
Grand totals inside and outside,	1	7	2	3	4	5	1	2	2	4	4	3	38

TABLE G.—Nationality of Persons Killed or Fatally Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
American,	....	....	....	....	....	2	....	....	....	....	....	....	2
Irish,	....	....	....	....	....	....	....	....	....	1	....	....	1
German,	....	....	....	1	....	....	....	....	....	....	....	....	1
Polish,	....	....	....	....	....	....	....	....	....	1	1	....	2
Hungarian,	....	....	....	....	....	....	....	....	1	....	....	....	1
Italian,	....	....	....	....	....	....	....	....	....	....	1	....	1
Slavonian,	....	....	....	....	....	....	....	1	....	....	....	....	1
Lithuanian,	....	....	....	....	....	1	....	....	....	....	....	....	1
Totals,	....	....	....	1	....	3	....	1	1	2	2	....	10

TABLE H.—Nationality of Persons Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
American,	1	2	....	2	....	1	....	....	....	....	....	....	6
English,	....	....	....	....	....	....	....	....	1	....	....	....	1
German,	....	....	....	....	....	....	....	1	....	....	....	....	1
Polish,	....	....	....	....	....	2	....	....	....	1	....	1	4
Hungarian,	....	....	....	....	....	....	....	1	....	....	....	....	1
Italian,	....	1	1	1	....	....	1	....	....	1	....	....	5
Slavonian,	....	2	1	....	....	1	....	....	1	1	1	....	7
Lithuanian,	....	1	....	....	1	....	....	....	....	....	2	1	5
Russian,	....	1	....	....	3	....	....	....	....	1	1	1	7
French,	....	....	....	....	....	1	....	....	....	....	....	....	1
Totals,	1	7	2	3	4	5	1	2	2	4	4	3	38

TABLE I.—Operators and mines, kind of openings, type and size of fans, size of furnaces, volume of air produced by fan or furnace per minute, number of splits of air currents and number of persons employed inside

Names of Operators and Mines	Kind of opening	Gaseous or non-gaseous	Method of ventilation	Diameter of fan in feet and inches	Width of blades in feet and inches	Depth of blades in feet and inches	Number of revolutions per minute	Water gauge developed—in inches	Name of fan	Power used	Area of furnace bars in square feet	Number of splits of air currents	Number of cubic feet of air per minute entering the mine at inlet	Total number of cubic feet of air per minute circulating in all the splits	Number of cubic feet of air per minute passing out at outlet	Number of persons employed inside
Monongahela River Consolidated Coal and Coke Co.																
Alice, ...	Drift, ...	Gaseous,	Fan, ...	8.0	6.0	......	225	4.0	Sirocco, ...	Electricity,.	..	10	145,920	108,970	163,000	390
Apollo, ...			Fan, ...	15.0	7.0	7.0	156	2.7	Capell, ...	Electricity,.	..	10	125,050	77,845	128,710	406
Fayette City, ...			Fan, ...	......	......	......	......	......			*	6	116,000	69,535	118,000	390
Little Redstone, ...			Fan, ...	8.0	1.7	......	320	1.1	Stine, ...	Electricity,.	..	2	34,580	34,580	52,470	121
Tremont, ...			Fan, ...	25.0	9.0	6.0	90	3.4	Robinson, .	Steam,......	..	10	145,000	105,000	175,000	398
Pittsburgh Coal Co.																
Arnold No. 1, ...	Drift, ...	Gaseous, ..	Fan, ...	25.0	9.0	6.0	......	.....	Robinson, .	Steam,......	..	..	....	....	....	....
Arnold No. 2, ...	Shaft,...		Fan, ...	18.0	6.0	8.5	138	4.0	Capell, ...	Steam,......	..	6	165,000	120,000	170,000	427
Equitable, ...	Drift, ...		Fan, ...	16.0	5.0	5.0	104	1.5	Robinson, .	Steam,......	..	5	96,000	82,940	108,000	374
Somers No. 2, ...	Drift, ...		Fans, ..	15.0	4.6	4.6	125	2.0	Brazil, ...	Electricity,.		6	135,000	94,300	158,000	285
				15.0	4.6	4.6	120	1.8	Brazil, ...	Steam,......						
Somers No. 4, ...	Drift, ...		Fan, ...	16.0	7.0	6.0	180	3.1	Capell, ...	Electricity,.	..	7	127,880	117,470	148,850	355
Henderson Coal Co.																
Irons Nos. 1 and 2, ...	Drift, ...	Non-gas., .	Fans, ...	5.0	2.6	2.6	425	.2	Stine, ...	Electricity,.	..	4	92,080	66,170	102,690	190
				5.0	1.8	2.6	375	.25								
				7.0	2.0	3.6	215	.2								
				7.0	2.1	3.6	220	.12								
Kennedy, ...	Drift, ...	Non-gas., .	Fans, ...	6.0	1.8	1.9	385	.5	American, .	Electricity,.		5	60,120	61,340	77,200	189
				5.0	2.6	1.10	420	.3	Stine, ...	Electricity,.						
Naomi Coal Co.																
Naomi, ...	Slope,.....	Gaseous, ..	Fan, ...	20.0	6.6	6.0	116	3.8	Pollock, ...	Electricity,.	..	7	160,280	90,320	189,200	271

*Ventilated by fan at Apollo mine.

Warner-Youghiogheny Coal Co.																
Leonard, ...	**Drift,**	**Non-gas.,** .	**Fans,**	8.0 8.0	1.0 2.0	4.0 3.0	220 60	5	Brazil. ... Jeffrey.	Electricity, . Electricity, .		4	97,000	67,000	97,040	285
Belle Vernon Coke Co.																
Belle Vernon, ...	**Drift,**	**Non-gas.,**	**Fan,**	......	......	......	......	......	....	....	†	4	34,800	31,800	34,800	59

†Ventilated by fan at Somers No. 4 mine, Pittsburgh Coal Co.

TABLE J.—Mines using coal cutting machines, power used, geological and local names of seams, thickest and thinnest seams where machines are used, and the approximate number of tons produced by machines

Names of Operators	Names of Mines	Kind of opening	Gaseous or non-gaseous	Number of mining machines used	Power used by machines	Geological and local names of seams	Average thickness in inches	Height of Seam in Inches		Approximate number of tons produced by machines
								Thickest	Thinnest	
Monongahela River Consolidated Coal and Coke Co.	Alice,	Drift,	Gaseous,	11	Electricity,	Pittsburgh,	84	90	72	394,407
	Apollo,			9			84	96	72	376,684
	Fayette City,			9			84	96	72	390,895
	Little Redstone,			2			84	96	72	108,369
	Tremont,			13			76	88	66	396,250
Totals,				44						1,666.606
Pittsburgh Coal Co.,	Arnold No. 1,	Drift,	Gaseous,	1	Electricity,	Pittsburgh,	84	96	72	1,352
	Arnold No. 2,	Shaft,		9			84	96	72	317,245
	Equitable,	Drift,		12			68	84	64	273,488
	Somers No. 2,	Drift,		12			76	120	38	268,017
	Somers No. 4,	Drift,		13			76	120	38	299,039
Totals,				47						1,159,091
Henderson Coal Co.,	Irons Nos. 1 and 2,	Drift,	Non-gas.,	6	Electricity,	Pittsburgh,	75	144	67	233,000
	Kennedy,	Drift,	Non-gas.,	8	Electricity,	Pittsburgh,	69	73	66	233,550
Totals,				14						466,550
Naomi Coal Co.,	Naomi,	Slope,	Gaseous,	12	Electricity,	Pittsburgh,	80	92	72	230,195
Warner-Youghiogheny Coal Co.,	Leonard,	Drift,	Non-gas.,	8	Electricity,	Pittsburgh,	84	102	51	313,486
Grand totals,				125						3,835,927

TABLE 1.—Operators, Location of Mines, Railroads, etc.

Names of Operators and Mines	County	Name of General Superintendent	Post Office	Name of Superintendent	Post Office	Railroad to Mine
Monongahela River Consolidated Coal and Coke Co.						
Alice,	Fayette,	George W. Schluederberg,	Pittsburgh,	John Black,	Roscoe,	P. and L. E.
Apollo,				R. H. Nicholas,	Fayette City,	
Fayette City,				R. H. Nicholas,	Fayette City,	
Little Redstone,				R. H. Nicholas,	Fayette City,	
Tremont,				George Harkess,	Arnold City,	
Pittsburgh Coal Co.						
Arnold Nos. 1* and 2,	Fayette,	George W. Schluederberg,	Pittsburgh,	George Harkess,	Arnold City,	P. and L. E.
Equitable,	Westmoreland,			William Neill,	Webster,	
Somers Nos. 3 and 4,	Westmoreland,			Thomas Easton,	Pricedale,	
Henderson Coal Co.						
Irons Nos. 1 and 2,	Westmoreland,	W. M. Henderson,	Pittsburgh,	Arthur McCune,	Charleroi,	P. and L. E.
Kennedy,						
Naomi Coal Co.						
Naomi,	Fayette,	John Gibson, Jr.,	Pittsburgh,	F. R. Knight,	Belle Vernon,	P. and L. E.
Warner-Youghiogheny Coal Co.						
Leonard,	Fayette,	John Leonard,	Fayette City,	John Leonard,	Fayette City,	P. and L. E.
Belle Vernon Coke Co.						
Belle Vernon,†	Fayette,	W. L. Affelder,	Pittsburgh,	T. F. Springer,	Belle Vernon,	P. and L. E.

*Abandoned.
†New mine.

TABLE 2.—Number of tons of coal mined and tons of coke produced, number of days worked, number of persons employed, number killed and injured, quantity of powder, dynamite and permissible explosives used, etc.

Names of Operators and Mines	County	Number of tons of coal shipped to market	Number of tons used at mines for steam and heat	Number of tons sold to local trade and used by employes	Number of tons used in manufacture of coke	Total production of coal in tons	Total production of coke in tons	Number of coke ovens	Number of days worked	Number of employes	Number of fatal accidents	Number of non-fatal accidents	Explosives			Number of horses and mules
													Number of pounds of powder used	Number of pounds of dynamite used	Number of pounds of permissible explosives used	
Monongahela River Consolidated Coal and Coke Co.																
Alice, ...	Fayette, ...	529,135	12,931	....	....	542,066	....	......	276	442	....	....	65,061	2,000	....	24
Apollo, ...		452,136	1,566	244	....	453,946	....	......	282	446	2	3	55,260	1,600	....	30
Fayette City, ...		504,208	1,166	50	....	506,424	....	......	280	422	....	2	66,060	1,800	....	31
Little Redstone, ...		157,511	16,781	19	....	174,311	....	......	276	151	....	....	21,800	500	....	14
Tremont, ...		483,579	7,117	3,504	....	494,200	....	......	289	437	1	1	48,000	....	1,000	28
Totals, ...	....	2,126,569	39,561	3,817	....	2,169,947	....	......	......	1,898	3	6	256,181	5,900	1,000	127
Pittsburgh Coal Co.																
Arnold No. 1, ...	Fayette, ...	9,057	260	....	....	9,307	....	......	22	148	....	....	....	....	....	13
Arnold No. 2, ...	Fayette, ...	431,797	10,496	2,028	....	444,321	....	......	281	481	2	1	32,000	....	12,500	33
Equitable, ...	Westmoreland, ..	357,326	3,023	2,353	....	362,702	....	......	271	408	....	5	25,975	75	1,050	33
Somers No. 2, ...	Westmoreland, ..	330,869	13,538	1,823	....	346,230	....	......	257	346	....	5	32,500	650	....	30
Somers No. 4, ...	Westmoreland, ..	359,595	....	....	....	359,595	....	......	270	411	1	1	35,325	100	....	28
Totals, ...	....	1,488,644	27,307	6,204	....	1,522,155	....	......	......	1,794	3	12	125,800	825	13,550	137
Henderson Coal Co.																
Irons Nos. 1 and 2, ..	Westmoreland, ..	292,644	....	507	....	293,151	....	......	293	218	....	8	48,800	....	....	7
Kennedy, ...	Westmoreland, ..	261,192	....	....	....	261,192	....	......	282	205	1	5	50,260	....	....	5
Totals, ...	....	553,836	....	507	....	554,343	....	......	......	423	1	13	99,060	....	....	12

Naomi Coal Co. Naomi, ...	Fayette, ...	353,522	....	913	....	354,435	....	......	267	316	2	3	....	....	28,675	7
Warner-Youghiogheny Coal Co. Leonard, ...	Fayette, ...	348,218	....	100	....	348,318	....	......	275	333	1	4	16,700	30	....	11
Belle Vernon Coke Co. Belle Vernon, ...	Fayette, ...	35,238	....	....	22,700	57,938	15,131	42	282	75	....	....	5,000	....	....	5
Grand totals, ...	....	4,906,027	66,868	11,541	22,700	5,007,136	15,131	42	......	4,839	10	38	502,681	6,755	38,225	299

TABLE 2—Part 2

Names of Operators	County	Number of Boilers					Locomotives				Number of steam engines of all classes	Total horse power	Number of pumps delivering water to surface	Capacity in gallons per minute	Quantity delivered to surface per minute—gallons	Number of electric dynamos	Number of air compressors
		Cylindrical	Horse power	Tubular	Horse power	Total horse power	Gasoline	Steam	Air	Electric							
Monongahela River Consolidated Coal and Coke Co., ..	Fayette, ...	6	540	19	2,550	3,090	......	......	......	13	25	3,242	16	4,538	2,822	8	......
Pittsburgh Coal Co., ...	Fayette, ... Westmoreland, ...	......	......	20	2,410	2,410	......	......	......	9	16	2,500	23	3,769	3,147	8	......
Henderson Coal Co., ...	Westmoreland, ...	......	......	......	......	......	......	......	......	9	......	......	7	575	140	......	2
Naomi Coal Co., ...	Fayette, ...	......	......	......	......	......	......	......	......	8	......	......	2	450	360	2	......
Warner-Youghiogheny Coal Co.	Fayette, ...	......	......	......	......	......	......	......	......	2	......	......	3	300	200	2	......
Belle Vernon Coke Co., ...	Fayette, ...	......	......	......	......	......	......	......	......	1	......	......	......	......	......	......	......
Totals, ...	....	6	540	39	4,960	5,500	......	......	......	42	41	5,748	51	9,632	6,669	20	2

TABLE 3.—Number of Each Class of Employes Inside and Outside of Mines

Names of Operators	County	Inside												Outside								Grand total inside and outside
		Mine foremen	Assistant mine foremen	Fire bosses	Miners	Machine runners	Machine loaders	Machine scrapers	Drivers and runners	Doorboys and helpers	Company men	All other employes	Total inside	Superintendents	Foremen	Blacksmiths and carpenters	Engineers and firemen	Coke employes	Bookkeepers and clerks	All other employes	Total outside	
Monongahela River Consolidated Coal and Coke Co.,	Fayette,	5	14	17	458	44	746	44	95	19	265	....	1,707	1	5	20	32	....	6	127	191	1,898
Pittsburgh Coal Co.,	Fayette, Westmoreland,	5	13	22	419	44	712	44	105	12	84	106	1,566	3	2	20	23	....	7	173	228	1,794
Henderson Coal Co.,	Westmoreland,	2	2	....	66	14	236	14	28	....	13	4	379	1	1	6	....	....	4	32	44	423
Naomi Coal Co.,	Fayette,	1	2	3	83	7	119	7	21	1	27	....	271	1	....	4	2	....	2	36	45	316
Warner-Youghiogheny Coal Co.,	Fayette,	1	....	1	18	10	232	10	14	4	14	....	304	1	1	2	....	....	1	24	29	333
Belle Vernon Coke Co.,	Fayette,	1	....	....	48	....	......	....	5	....	5	....	59	1	....	2	....	9	....	4	16	75
Totals,		15	31	43	1,092	119	2,045	119	268	36	408	110	4,286	8	9	54	57	9	20	396	553	4,839

TABLE 3—Part 2

Names of Operators	County	Average Number of Days Worked												
		January	February	March	April	May	June	July	August	September	October	November	December	Totals
Monongahela River Consolidated Coal and Coke Co.,	Fayette,	22	23	22	22	23	24	25	25	24	25	21	24	280
Pittsburgh Coal Co.,	Fayette, Westmoreland,	24	16	17	18	18	19	19	20	18	19	18	14	220
Henderson Coal Co.,	Westmoreland,	26	24	23	25	26	25	26	25	24	25	23	16	288
Naomi Coal Co.,	Fayette,	[illegible]	23	21	23	24	24	24	24	23	25	18	13	267
Warner-Youghiogheny Coal Co.,	Fayette,	24	18	21	25	24	25	25	25	23	22	21	22	275
Belle Vernon Coke Co.,	Fayette,	14	24	26	25	25	25	24	25	24	26	22	22	282

TABLE 4.—Fatal Accidents Inside and Outside of Mines

Date of accident		Name of Person	Nationality	Occupation	Age	Married or single	Number of widows	Number of orphans	Name of Mine	County	Nature and Cause of Accident in Brief
April	14	Frank Spirk,	German,	Miner,	49	S.	....	....	Apollo,	Fayette,	Fatally injured by fall of slate at corner of rib. Back broken.
June	4	Robert Gates, Jr.,	American,	Miner,	20	S.	....	....	Tremont,	Fayette,	Fatally injured by fall of slate while drawing rib.
	20	Tony Vasloski,	Lithuanian,	Miner,	26	S.	....	....	Arnold No. 2,	Fayette,	Fatally injured by fall of slate while drawing rib.
	27	Sylvester Fisher,	American,	Miner,	54	S.	....	....	Kennedy,	Westmoreland,	Fatally injured by fall of roof while drawing posts to make fall in rib.
Aug.	5	John Dunge,	Slavonian,	Loader,	28	M.	1	1	Leonard,	Fayette,	Fatally injured by fall of coal at corner of rib while working on track.
Sept.	5	Mike Halazelos,	Hungarian,	Miner,	45	M.	1	4	Somers No. 4,	Westmoreland,	Fatally injured by fall of roof while drawing rib.
Oct.	8	James Lavery,	Irish,	Loader,	53	M.	1	2	Apollo,	Fayette,	Fatally injured by fall of coal at face of room.
	28	John Tomasky,	Polish,	Miner,	39	M.	1	6	Arnold No. 2,	Fayette,	Fatally injured by fall of slate at corner while drawing rib.
Nov.	4	Frank Sewensky,	Polish,	Motorman,	23	S.	....	....	Naomi,	Fayette,	Fatally injured while attempting to swing loaded trip without proper clearance for his motor. He was caught between the motor and a trip of empties on side track and disemboweled.
	30	Mike Rush,	Italian,	Laborer,	34	M.	1	4	Naomi,	Fayette,	Fatally injured between loaded cars by the breaking of timber in trestle. The cars on parallel tracks fell toward each other with the laborer between them. Outside.

TABLE 5.—Non-Fatal Accidents Inside and Outside of Mines

Date of accident		Name of Person	Nationality	Occupation	Age	Married or single	Name of Mine	County	Nature and Cause of Accident in Brief
Jan.	9	John McDonough,	American,	Loader,	29	S.	Tremont,	Fayette,	Compound fracture of lower left leg by falling piece of shale rock roof at face of room.
Feb.	1	Charles Babish,	Russian,	Loader,	23	S.	Leonard,	Fayette,	Bone in ankle broken by fall of coal at face of room.
	8	Daniel Johns,	American,	Miner,	40	M.	Irons Nos. 1 and 2,	Westmoreland,	Two toes cut off by fall of bottom coal while shoveling coal at face of rib.
	10	Costono Ghio,	Italian,	Miner,	30	S.	Equitable,	Westmoreland,	Leg and ankle injured by fall of coal while shearing cut of coal.
	11	Mike Andrisky,	Slavonian,	Loader,	37	M.	Kennedy,	Westmoreland,	Fracture of right leg by fall of coal at face of room.
	13	John Watsloako,	Slavonian,	Laborer,	49	M.	Irons Nos. 1 and 2,	Westmoreland,	Foot badly bruised while standing on chain hitching to cut loaded trip. Outside.
	19	Mike Norks,	Lithuanian,	Laborer,	48	M.	Arnold No. 2,	Fayette,	Leg broken between bumpers of loaded cars on side track.
	20	William Hamilton,	American	Laborer,	32	M.	Equitable,	Westmoreland,	Foot crushed while scraping coal off railroad track under tipple in front of railroad car. Outside.
March	21	Louis Bartoletti,	Italian,	Miner,	40	M.	Somers No. 2,	Westmoreland,	Leg broken by fall of roof while loading last car, finishing a rib.
	28	Charley Congo,	Slavonian,	Miner,	35	M.	Equitable,	Westmoreland,	Femur broken by fall of coal from entry stump.
April	2	Joe Reed,	Italian,	Driver,	33	M.	Somers No. 2,	Westmoreland,	Back and chest bruised by falling under front car of empty trip.
	4	John Anderson,	American,	Loader,	22	S.	Leonard,	Fayette,	Left leg broken by pot falling out of roof. The car prevented the loader from getting to a safe place.
	26	James Brown,	American,	Driver,	30	M.	Kennedy,	Westmoreland,	Arm broken against rib by derailment of cars.
May	1	Mike Dluzeine,	Russian,	Loader,	33	M.	Kennedy,	Westmoreland,	Leg broken between empty car and mining machine on entry.
	2	Ignats Molchuck,	Russian,	Miner,	27	S.	Naomi,	Fayette,	Compound fracture of right lower leg by fall of coal at face of room.
	12	Alexander Coupes,	Russian,	Loader,	28	M.	Kennedy,	Westmoreland,	Leg badly bruised against rib by derailment of empty car on entry.

May	20	Jacob Halwsek,	Lithuanian,	Laborer,	26	M.	Irons Nos. 1 and 2,	Westmoreland,	Foot badly bruised by being caught in switch and run over by loaded car. Outside.
June	9	Joseph Kopesky,	Polish,	Loader,	50	M.	Apollo,	Fayette,	Leg broken by fall of coal from face of room.
	11	Rufus Ritchie,	French,	Miner,	52	M.	Somers No. 2,	Westmoreland,	Foot crushed and toe amputated by fall of slate while drawing rib.
	16	Andy Bolosko,	Slavonian,	Driver,	23	S.	Irons Nos. 1 and 2,	Westmoreland,	Foot bruised and toe broken by car while hitching a trip on entry.
	20	Charles McDaniels,	American,	Mine foreman,	36	M.	Apollo,	Fayette,	Skull fractured and back injured between car and entry rib while trying to place a derailed car on the track.
	21	Tony Macutsi,	Polish,	Miner,	24	S.	Irons Nos. 1 and 2,	Westmoreland,	Finger cut off by fall of slate in room.
July	10	Francis Aldo,	Italian,	Miner,	23	M.	Kennedy,	Westmoreland,	Leg broken by fall of coal while undermining at face of rib.
Aug.	5	Frank Toad,	Hungarian,	Miner,	46	M.	Equitable,	Westmoreland,	Ankle fractured by fall of roof at face of room.
	12	August Eisenberg,	German,	Loader,	53	M.	Equitable,	Westmoreland,	Fracture of pelvis and two ribs by fall of slate while setting post at face of room.
Sept.	3	Mike Sibo,	Slavonian,	Driver,	32	M.	Irons Nos. 1 and 2,	Westmoreland,	Hand smashed by being run over by a car on the entry when it jumped the track.
	24	John Ashley,	English,	Snapper,	23	S.	Naomi,	Fayette,	Leg injured by cars on entry.
Oct.	6	Mike Gongosky,	Polish,	Scraper,	36	M.	Somers No. 2,	Westmoreland,	Leg broken by fall of coal at face while cutting room.
	9	Henry Bone,	Italian,	Miner,	40	M.	Irons Nos. 1 and 2,	Westmoreland,	Finger cut off by being caught between a lump of coal and car at face of room.
	10	Mike Monarch,	Russian,	Loader,	45	M.	Somers No. 2,	Westmoreland,	Compound fracture of right leg by fall of slate in room.
	20	John Casey,	Slavonian,	Laborer,	38	M.	Irons Nos. 1 and 2,	Westmoreland,	Bruised leg and cut above eye by fall of slate while drawing post in room.
Nov.	6	Alexander Yesconitch,	Russian,	Loader,	22	S.	Fayette City,	Fayette,	Right leg broken above ankle by fall of slate.
	10	Charles Bazago,	Slavonian,	Loader,	22	S.	Fayette City,	Fayette,	Left leg broken below knee by fall of coal at face of room.
	26	James Pricella,	Lithuanian,	Loader,	20	S.	Apollo,	Fayette,	Leg fractured by fall of roof in room.
		Wasil Bobera,	Lithuanian,	Miner,	42	M.	Somers No. 4,	Westmoreland,	Leg broken between knee and ankle by fall of coal.
Dec.	6	Mike Smyder,	Russian,	Scraper,	43	M.	Leonard,	Fayette,	Left leg broken above the knee. Slab of coal fell from face of room while he was making the last run.
	12	John Wiercheck,	Polish,	Loader,	32	S.	Leonard,	Fayette,	Wrist broken by fall of coal while shearing tight shot in room.
	29	Steve Casey,	Lithuanian,	Scraper,	34	S.	Naomi,	Fayette,	Left upper arm and right upper leg broken by fall of piece of black roof at face of room.

CONDITION OF MINES

MONONGAHELA RIVER CONSOLIDATED COAL AND COKE COMPANY

Alice.—Ventilation good in nearly all parts; drainage defective in some places. General condition of mine fair.

Apollo.—Ventilation, drainage and general condition satisfactory.

Fayette City.—Ventilation improved since last inspection. Drainage good, except in a few places. General condition ought to be further improved.

Little Redstone.—The mining is nearly all pillar work, the solid work being almost finished. Ventilation fair and well arranged to ventilate the abandoned parts as well as the working parts. Drainage good in the working parts and general condition satisfactory.

Tremont.—Ventilation good, except in two splits. Drainage good. General condition satisfactory.

PITTSBURGH COAL COMPANY

Arnold No. 2.—Ventilation fair; drainage good. Mine was in a clean and tidy condition generally.

Equitable.—An old mine opening up a large new body of coal. The old parts are rather unclean, except on the main entries, but the new work is in good condition. Sanitary condition of the air good, but drainage somewhat defective.

Somers No. 2.—Ventilation good. The mine should be better drained and cleaned up in some parts.

Somers No. 4.—Sanitary condition of the air was satisfactory. Drainage fair. General condition fair.

HENDERSON COAL COMPANY

Irons Nos. 1 and 2.—Ventilation good. Drainage and general condition fair.

Kennedy.—Ventilation good. Drainage good, except in a few places. General condition excellent.

NAOMI COAL COMPANY

Naomi.—Ventilation, drainage and general condition good.

WARNER-YOUGHIOGHENY COAL COMPANY

Leonard.—Ventilation, drainage and general condition fair.

BELLE VERNON COKE COMPANY

Belle Vernon.—Ventilation, drainage and general condition fair.

IMPROVEMENTS

MONONGAHELA RIVER CONSOLIDATED COAL AND COKE COMPANY

Alice.—Built 32 brick stoppings, 4 overcasts, 5 brick pump houses, a First Aid room of brick and a brick machine shop. The machine shop was provided with 72 fireproof shelves. An air shaft was widened and provided with stairs. A bore hole 200 feet deep was drilled for drainage purposes. Installed two 20 H. P. centrifugal pumps, two short wall machines and 24 additional safety lamps. 176 shelter holes were made and about 6,250 feet of boards placed for wire protection.

Apollo.—The traveling-way was improved from 3rd butt to 1st left, 12th face. The motor roads were extended 1,000 feet into the mine. 50 masonry stoppings, 6 overcasts and 3 pump houses were erected. Installed four triplex electric pumps and one 13-ton haulage locomotive.

Fayette City.—Main traveling-way was improved and other traveling-ways extended into the mine. 98 masonry stoppings, 2 brick pump houses and a brick First Aid room were erected. Motor haulage was extended 600 feet into the workings. Two electric pumps were installed.

Little Redstone.—10 brick stoppings and 5 brick and steel overcasts were erected.

Tremont.—Built 5 overcasts, 2 brick pump houses, a machine shop and a new lamp room. A motor pit and 92 shelter holes were made. Two 620 feet of drainage lines were laid. 215 Wolf safety lamps were installed. The motor haulage was extended 3,300 feet. Outside: Erected a mine car repair shop and sand house, 60 by 20 feet.

PITTSBURGH COAL COMPANY

Arnold No. 2.—Built 3 overcasts, a First Aid room, 77 stoppings, 3 pump rooms and an oil room, all of brick. 210 shelter holes were made. The motor haulage was extended 5,180 feet. Outside: Erected a 1,200-barrel water tank, a carpenter shop, 18 by 50 by 9 feet, and a mine foreman's office, 14 by 32 by 8 feet.

Equitable.—One new overcast was erected and one enlarged. The motor haulage was extended 4,000 feet.

Somers No. 2.—Three pump rooms and one overcast were erected; 50 shelter holes made and haulage road graded 600 feet.

Somers No. 4.—One 25 H. P. electric pump installed and a bore hole 145 feet deep drilled for discharge line. 116 new shelter holes were made and 120 old ones enlarged. 500 feet of road-way graded. Three overcasts and 3 pump rooms erected. Outside a crusher was installed and a crusher house erected; also built a brick gasoline house, a 2-stall stable, a box stall for sick horses and an ambulance shed. Fifty Hirsch electric mine lamps were provided and a hospital ambulance.

HENDERSON COAL COMPANY

Irons Nos. 1 and 2.—One 5-foot Stine fan installed and fireproof house erected around the motor propelling the fan. Four fireproof houses erected around motors operating pumps. One shortwall mining machine installed.

Kennedy.—One 6-foot Ventura fan installed and a fireproof house erected around the motor propelling the fan. One electric pump installed and a fireproof house built around the motor propelling the pump. Erected 4 overcasts and 12 tile stoppings. Installed two 6-ton gathering motors, 2 short wall mining machines and 134 new mine cars. Outside: Erected a building of 2 rooms for use as a mine office and supply room.

NAOMI COAL COMPANY

Naomi.—Erected two room concrete building inside for use as a mine office and hospital. The hospital room was well constructed and equipped for its purpose. Erected two concrete pump houses. 30 sets of timbers were replaced at the sidetrack at the bottom of the slope. 89 concrete stoppings were built. The sprinkling system was extended by 4,690 feet of 1½-inch pipe, 1,800 feet of 2-inch pipe and 1,150 feet of 3-inch pipe. The motor roads were extended by 10,200 feet of 20-pound track, 1,200 feet of 35-pound track and 2,000 feet of 40-pound track. A new concrete lamp house, equipped with racks and shelves, was built outside.

BELLE VERNON COKE COMPANY

Belle Vernon.—This mine began operations during January as a coke plant. It was formerly the Somers No. 1 mine, and is ventilated by the Somers No. 4 fan. During the year an electric haulage motor was installed, with the necessary wiring, et cetera. The power is furnished direct at 550 volts by the West Penn Power Company. The main haulage way has been slabbed at places to provide proper clearance, and shelter-holes made. The drainage was also improved. The electric haulage was extended 4,500 feet into the mine.

TWENTY-EIGHTH DISTRICT

ARMSTRONG, JEFFERSON, CLEARFIELD AND INDIANA COUNTIES

Punxsutawney, Pa., February 20, 1914.

Hon. James E. Roderick, Chief of Department of Mines:

Sir: I have the honor to transmit herewith my annual report as Inspector of Mines of the Twenty-eighth Bituminous District for the year ending December 31, 1913, in compliance with the provisions of the Bituminous Mine law.

Respectfully submitted,

THOMAS H. THOMPSON, Inspector.

SUMMARY OF STATISTICS

Number of mines,	59
Number of mines in operation,	53
Number of tons of coal shipped to market,	5,593,274
Number of tons used at mines for steam and heat,	179,809
Number of tons sold to local trade and used by employes,	19,487
Number of tons used in the manufacture of coke,	....
Number of tons of coal produced,	5,792,570
Number of tons of coke produced,	....
Number of coke ovens,	....
Number of coke ovens in operation,	....
Number of tons of coal produced by pick mining,	1,331,457
Number of tons produced by compressed air machines,	1,271,841
Number of tons produced by electrical machines,	3,189,272
Number of persons employed inside of mines,	5,584
Number of persons employed outside, including coke workers,	718
Number of persons employed at manufacture of coke,	....
Number of fatal accidents inside of mines,	8
Number of fatal accidents outside,	2
Number of non-fatal accidents inside of mines,	31
Number of non-fatal accidents outside,	5
Number of tons of coal produced per fatal accident inside,	724,071
Number of tons produced per fatal accident outside,	2,896,285
Number of tons produced per fatal accident inside and outside,	579,257
Number of persons employed per fatal accident inside,	698
Number of persons employed per fatal accident outside,	359
Number of persons employed per fatal accident inside and outside,	630
Number of persons employed per non-fatal accident inside,	180
Number of persons employed per non-fatal accident outside,	144
Number of persons employed per non-fatal accident inside and outside,	175
Number of wives made widows,	6
Number of children made orphans,	14
Number of steam locomotives used inside of mines,	....
Number of steam locomotives used outside,	3
Number of compressed air locomotives used inside,	....
Number of compressed air locomotives used outside,	....
Number of electric motors used inside,	88
Number of electric motors used outside,	2
Number of gasoline locomotives used inside,	2
Number of fans in use,	33
Number of furnaces in use,	16
Number of gaseous mines in operation,	3
Number of non-gaseous mines in operation,	50
Number of new mines opened,	6
Number of old mines abandoned,	5

TABLE A

PRODUCTION OF COAL

Names of Operators

	Tons
Cowanshannock Coal and Coke Company,	1,250,269
Buffalo and Susquehanna Coal and Coke Company,	1,088,751
Allegheny River Mining Company,	1,066,832
Jefferson and Clearfield Coal and Iron Company,	491,245
Anita Coal Mining Company,	304,405
Seneca Coal Mining Company,	254,256
Fairmount Coal Company,	250,596
Peale, Peacock and Kerr, Incorporated,	237,307
Rochester and Pittsburgh Coal and Iron Company,	224,460
Potts Run Land Company,	143,459
Carnwath Coal Company,	130,795
S. A. Rinn Coal Company,	76,353
Pine Run Coal Company,	67,668
Oak Ridge Mining Company,	65,065
Reed Colliery Company,	37,250
Ross Run Coal Company,	20,168
Clearfield and Cambria Coal and Coke Company,	17,341
Savan Coal Mining Company,	15,818
Kelley Brothers Coal Company,	12,370
Williams Run Coal Company,	10,650
Good Clay and Coal Company,	9,150
Easton Coal Company,	7,662
Unity Coal Company,	6,761
Mahoning Coal Company,	3,939
Total,	5,792,570

Production by Counties

Armstrong,	3,267,085
Jefferson,	1,653,316
Clearfield,	602,095
Indiana,	270,074
Total,	5,792,570

TABLE B.—Fatal and non-fatal accidents inside and outside of mines; number of tons of coal produced per accident; number of persons employed; number employed per accident

Names of Operators	Fatal Accidents			Non-Fatal Accidents			Tons of coal produced per fatal accident inside	Tons of coal produced per non-fatal accident inside	Number of employes inside	Number of employes outside	Total number of employes	Number of employes inside per fatal accident	Number of employes outside per fatal accident	Number of employes inside per non-fatal accident	Number of employes outside per non-fatal accident
	Inside	Outside	Total	Inside	Outside	Total									
Cowanshannock Coal and Coke Co., ...	2	1	3	6	1	7	625,135	208,378	1,091	155	1,246	545	155	182	155
Buffalo and Susquehanna Coal and Coke Co., ...	1	1	2	5	......	5	1,088,751	217,750	881	106	987	881	106	176	....
Allegheny River Mining Co., ...	1	......	1	4	......	4	1,066,832	266,708	886	94	980	886	....	222	....
Jefferson and Clearfield Coal and Iron Co.,	1	......	1	2	1	3	491,245	245,622	373	70	443	373	....	186	70
Anita Coal Mining Co., ...	1	......	1	3	......	3	304,405	101,468	249	22	271	249	....	83	....
Seneca Coal Mining Co., ...	......	......	......	1	......	1	....	254,256	216	34	250	....	....	216	....
Fairmount Coal Co., ...	1	......	1	1	3	4	250,596	250,596	472	66	538	472	....	472	22
Peale, Peacock and Kerr, Inc., ...	......	......	......	1	......	1	....	237,307	277	27	304	....	....	277	....
Rochester and Pittsburgh Coal and Iron Co., ...	......	......	......	1	......	1	....	224,460	190	20	210	....	....	190	....
Potts Run Land Co., ...	1	......	1	......	......	......	143,459	....	145	14	159	145	....	....	....
Carnwath Coal Co., ...	......	......	......	1	......	1	....	130,795	138	16	154	....	....	138	....
S. A. Rinn Coal Co., ...	......	......	......	1	......	1	....	76,353	62	10	72	....	....	62	....
Pine Run Coal Co., ...	......	......	......	1	......	1	....	67,668	254	33	287	....	....	254	....
Oak Ridge Mining Co., ...	......	......	......	2	......	2	....	32,532	70	12	82	....	....	35	....
Good Clay and Coal Co., ...	......	......	......	1	......	1	....	9,150	32	2	34	....	....	32	....
Easton Coal Co., ...	......	......	......	1	......	1	....	7,662	18	3	21	....	....	18	....
Miscellaneous Companies, ...	......	......	......	......	......	......	....	....	230	34	264	....	....	....	....
Totals and averages for district, ...	8	2	10	31	5	36	724,071	186,857	5,584	718	6,302	698	359	180	144

TABLE C.—Classification of Fatal Accidents Inside and Outside of Mines

	Months													
	January	February	March	April	May	June	July	August	September	October	November	December	Totals	Percentages
Causes of Accidents Inside														
Falls of coal, ...	1	....	....	....	....	....	....	....	1	....	....	....	2	25.00
Falls of slate, ...	...	....	....	....	....	1	....	....	....	....	....	....	1	12.50
Falls of roof, ...	1	....	....	....	....	....	....	....	....	....	....	1	2	25.00
Mine cars, ...	....	1	....	....	....	....	....	....	....	....	....	....	1	12.50
Falling into shafts, ..	....	....	....	....	....	....	....	1	....	....	....	....	1	12.50
Machinery, ...	....	....	....	....	....	....	....	....	....	1	....	....	1	12.50
Totals, ...	2	1	....	....	....	1	....	1	1	1	....	1	8	100.00
Causes of Accidents Outside														
Cars, ...	....	....	....	....	....	....	....	1	....	....	....	....	1	50.00
By falling, ...	....	1	....	....	....	....	....	....	....	....	....	....	1	50.00
Totals, ...	....	1	....	....	....	....	....	1	....	....	....	....	2	100.00
Grand totals inside and outside, ...	2	2	....	....	....	1	....	2	1	1	....	1	10	......

TABLE D —Classification of Non-Fatal Accidents Inside and Outside of Mines

	Months													
	January	February	March	April	May	June	July	August	September	October	November	December	Totals	Percentages
Causes of Accidents Inside														
Falls of coal, ...	....	....	1	....	....	....	....	....	2	1	1	3	8	25.81
Falls of slate, ...	....	1	....	....	1	....	....	....	....	1	....	....	3	9.68
Falls of roof, ...	1	....	....	2	....	....	....	....	....	3	3	1	10	32.26
Mine cars, ...	....	2	1	....	....	....	2	....	2	....	....	....	7	22.58
Blasts, premature and otherwise, ...	....	....	....	....	....	....	....	....	....	....	.. .	1	1	3.23
Machinery, ...	....	1	....	....	....	....	....	....	....	....	....	....	1	3.22
Struck by bricks, ...	....	1	....	....	....	....	....	....	....	....	....	....	1	3.22
Totals, ...	1	5	2	2	1	....	2	....	4	5	4	5	31	100.00
Causes of Accidents Outside														
Cars, ...	....	....	1	....	..	....	2	....	1	....	....	1	5	100.00
Totals, ...	....	....	1	....	....	....	2	....	1	....	....	1	5	100.00
Grand totals inside and outside, ...	1	5	3	2	1	....	4	....	5	5	4	6	36	......

TABLE E.—Occupations of Persons Killed or Fatally Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
Inside													
Mine foremen,	....	....	....	....	....	....	....	1	....	....	....	....	1
Miners,	2	....	....	....	....	....	....	....	....	....	....	....	2
Machine runners,	....	....	....	....	....	1	....	....	....	....	....	....	1
Machine loaders,	....	....	....	....	....	....	....	....	1	....	....	1	2
Machine scrapers,	....	....	....	....	....	....	....	....	....	1	....	....	1
Drivers and runners,	....	1	....	....	....	....	....	....	....	....	....	....	1
Totals,	2	1	....	....	....	1	....	1	1	1	....	1	8
Outside													
Engineers and firemen,	..	1	....	....	....	....	....	....	....	....	....	....	1
Laborers,	....	....	....	....	....	....	....	1	....	....	....	....	1
Totals,	....	1	..	....	....	....	....	1	....	....	....	....	2
Grand totals inside and outside,	2	2	....	....	....	1	....	2	1	1	....	1	10

TABLE F.—Occupations of Persons Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
Inside													
Miners,	1	2	1	2	....	....	....	....	2	4	3	5	20
Machine runners,	....	....	....	....	....	....	....	....	1	....	....	....	1
Machine loaders,	....	....	....	....	....	....	....	....	....	1	1	....	2
Machine scrapers,	....	1	....	....	....	....	....	....	....	....	....	....	1
Drivers and runners,	....	....	....	....	1	....	1	....	1	....	....	....	3
Doorboys and helpers,	....	1	....	....	....	....	....	....	....	....	....	....	1
Laborers,	....	1	....	....	....	....	....	....	....	....	....	....	1
Linemen,	....	....	1	....	....	....	....	....	....	....	....	....	1
Motormen,	....	....	....	....	....	....	1	....	....	....	....	....	1
Totals,	1	5	2	2	1	....	2	....	4	5	4	5	31
Outside													
Scrapers,	....	....	....	....	....	....	1	....	....	....	....	....	1
Miners,	....	....	....	....	....	....	1	....	....	....	....	....	1
Dumpers,	....	....	....	....	....	....	....	....	1	....	....	....	1
Laborers,	....	....	1	....	....	....	....	....	....	....	....	1	2
Totals,	....	....	1	....	...	....	2	....	1	....	....	1	5
Grand totals inside and outside,	1	5	3	2	1	....	4	....	5	5	4	6	36

TABLE G.—Nationality of Persons Killed or Fatally Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
American,	....	1	....	....	....	....	....	1	....	....	....	1	3
English,	....	....	....	....	....	....	....	....	1	....	....	....	1
Scotch,	1	....	....	....	....	....	....	....	....	....	....	....	1
Hungarian,	....	....	....	....	....	....	....	1	....	....	....	....	1
Italian,	....	1	....	....	....	....	....	....	....	....	....	....	1
Slavonian,	1	....	....	....	....	....	....	....	....	1	....	....	2
Swedish,	....	....	....	....	....	1	....	....	....	....	....	....	1
Totals,	2	2	....	....	....	1	....	2	1	1	....	1	10

TABLE H.—Nationality of Persons Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
American,	....	2	2	....	1	....	2	....	1	1	1	2	12
English,	....	....	....	....	....	....	1	....	1	1	....	....	3
Scotch,	....	1	....	....	....	....	....	....	1	....	....	....	2
German,	....	....	....	1	....	....	....	....	....	....	....	....	1
Polish,	....	....	....	....	....	....	....	....	....	....	....	1	1
Hungarian,	....	....	....	....	....	....	....	....	1	....	....	....	1
Italian,	1	....	....	1	....	....	1	....	1	3	1	3	11
Slavonian,	....	....	1	....	....	....	....	....	....	....	....	....	1
Austrian,	....	2	....	....	....	....	....	....	....	....	1	....	3
Russian,	....	....	....	....	....	....	....	....	....	....	1	....	1
Totals,	1	5	3	2	1	....	4	....	5	5	4	6	36

TABLE I.—Operators and mines, kind of openings, type and size of fans, size of furnaces volume of air produced by fan or furnace per minute, number of splits of air currents and number of persons employed inside

Names of Operators and Mines	Kind of opening	Gaseous or non-gaseous	Method of ventilation	Diameter of fan in feet and inches	Width of blades in feet and inches	Depth of blades in feet and inches	Number of revolutions per minute	Water gauge developed—in inches	Name of fan	Power used	Area of furnace bars in square feet	Number of splits of air currents	Number of cubic feet of air per minute entering the mine at inlet	Total number of cubic feet of air per minute circulating in all the splits	Number of cubic feet of air per minute passing out at outlet	Number of persons employed inside
Cowanshannock Coal and Coke Co.																
Yatesboro No. 2, ...	Slope, ...	Non-gas., .	Fan, ...	12.5	7.0	6.25	175	4.0	Capell, ...	Electricity, .		3	72,000	46,500	74,500	275
Yatesboro No. 3, ...	Slope, ...	Gaseous, ..	Fan, ...	12.5	7.0	6.25	160	3.0	Capell, ...			5	75,000	42,400	80,500	166
Yatesboro No. 4, ...	Slope, ...	Non-gas., .	Fan, ...	14.0	6.0	7.0	108	2.8	Robinson,			4	103,500	42,200	110,650	300
Yatesboro No. 5, ...	Slope, ...	Non-gas., .	Fan, ...	12.0	4.6	1.3	170	2.8	Clifford, ..			3	138,640	70,450	140,000	350
Buffalo and Susquehanna Coal and Coke Co.																
Sagamore No. 13, ...	Drift.	Gaseous, ..	Fan, ...	8.0	3.5	3.5	219	3.2	Capell, ...	Electricity, .		5	67,200	50,000	69,700	261
Sagamore No. 15, ...	Drift, ...	Non-gas., .	Fan, ...	8.0	3.5	3.5	180	2.8				4	84,500	62,200	92,300	149
Sagamore No. 17, ...	Drift, ...	Non-gas., .	Fan, ...	8.0	3.5	3.5	202	2.3				3	72,000	50,000	72,900	226
Sagamore No. 18, ...	Drift, ...	Non-gas., .	Fan, ...	8.0	3.5	3.5	209	2.0				5	72,000	40,000	73,900	245
Allegheny River Mining Co.																
Seminole Nos. 1 and 2, ...	Drift, ...	Non-gas., .	Fan,* ..	16.0	6.0	0.6	160	2.0	Sirocco, ...	Electricity, .	..	15	127,140	85,000	128,180	418
Conifer Nos. 3 and 4, ...			Fan,* ..	16.0	6.0	4.0	90	1.8	Brazil, ...	Steam, ...	..	5	68,000	50,000	70,000	444
Hunts Run, ...			Fan, ...	6.0	2.4	2.3	600	.5	Stine, ...	Electricity, .	..	2	42,000	25,200	44,000	24

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*Ventilates both mines.

Jefferson and Clearfield Coal and Iron Co.																
Trout Run No. 1,	Drift,	Non-gas.,	Fan,	16.0	8.0	7.0	90	1.0	Capell,	Steam,	..	4	98,000	37,900	95,000	301
Maplewood,				6.0	1.5	2.5	200	.3	Clark,	Steam,	..	1	12,000	5,000	16,200	37
Soldier No. 4,				7.0	1.5	2.5	310	.5	Stine,	Compressed air,	..	1	15,000	5,000	17,250	35
Anita Coal Mining Co.																
Anita No. 6,	Slope,	Gaseous,	Fan,	20.0	4.5	6.0	116	2.4	Capell,	Steam,	..	3	72,000	33,700	79,200	218
Anita No. 7,	Slope,	Non-gas.,	Furnace,	......	......	......	......	......	......	......	30	1	8,300	3,500	9,250	36
Seneca Coal Mining Co.																
Seneca No. 1,	Drift,	Non-gas.,	Fan,	12.0	2.0	6.0	150	.8	Stine,	Steam,	..	3	47,000	30,000	52,000	216
Fairmount Coal Co.																
Fairmount No. 2,	Drift,	Non-gas.,	Furnace,	......	......	......	......	......	......	......	36	1	19,000	15,000	19,200	81
Fairmount No. 3,			Furnace,	......	......	......	......	......	......	......	56	1	13,000	10,000	14,000	62
Fairmount No. 5,			Fan,	10.0	3.0	2.5	140	.7	Capell,	Steam,	..	2	28,800	15,300	31,500	151
Fairmount No. 6,			Furnace,	......	......	......	......	......	......	......	64	2	18,250	15,000	20,000	83
Fairmount No. 8,			Fan,	8.0	3.6	3.3	300	.4	Stine,	Electricity,	..	2	32,000	25,000	35,000	115
Fairmount No. 9,			Fan,	4.6	1.6	2.0	600	......	Stine,	Electricity,	..	1	33,500	20,000	35,000	30
Peale, Peacock and Kerr, Inc.																
Glen Richey No. 5,	Slope,	Non-gas.,	Fan,	20.0	6.0	7.0	70	1.8	Brazil,	Steam,	..	2	64,000	16,675	65,120	149
Bloomington No. 18A,	Drift,		Furnace,	....	......	......	......	......	......	......	40	1	14,400	10,560	15,000	31
Bloomington No. 19A,	Drift.		Fan,	6.0	1.5	2.5	......	......	Stine,	Electricity,	..	2	32,000	15,000	33,600	97
Rochester and Pittsburgh Coal and Iron Co.																
Walston Nos. 6 and 6½,	Drift,	Non-gas.,	Fan,*	20.0	5.0	6.0	45	1.0	Guibal,	Steam,	..	1	39,500	4,000	40,000	10
Walston No. 7,			Fan,	6.0	1.2	2.4	150	.3	Stine,	Electricity,	..	1	17,500	6,200	18,200	29
Walston No. 9,			Fan,	6.0	1.2	2.4	150	.4	Stine,	Electricity,	..	1	15,000	9,000	16,000	97
Walston No. 11,			Fan,	6.0	1.2	2.4	150	.5	Stine,	Electricity,	..	1	16,000	7,040	17,120	54
Potts Run Land Co.																
Potts Run No. 2,	Drift,	Non-gas.,	Fan,	8.0	4.0	2.5	110	.5	Robinson,	Steam,	..	1	21,600	9,480	24,960	62
Potts Run No. 3,	Drift,	Non-gas.,	Furnace,	......	......	......	......	......	......	......	48	1	12,500	5,870	13,900	83
Carnwath Coal Co.																
Carnwath No. 1,	Drift,	Non-gas.,	Furnace,	......	......	......	......	......	......	......	42	3	18,000	12,000	20,000	78
Carnwath No. 2,	Drift,	Non-gas.,	Fan,	8.0	3.2	3,2	240	.5	Stine,	Electricity,	..	3	23,200	15,700	26,000	60
S. A. Rinn Coal Co.																
Adrian No. 2.	Slope,	Non-gas.,	Fan,	5.0	1.0	2.0	150	.4	Clark,	Electricity,	..	1	15,000	11,700	16,250	62
Pine Run Coal Co.																
Brooks No. 1,	Drift,	Non-gas.,	Fan,	5.0	1.2	1.4	550	.5	Sirocco Blower,	Gasoline,	..	2	17,500	14,800	22,800	67
Pine Run No. 5,			Fan,	8.0	3.2	3.10	180	.3	Stine,	Steam,	..	2	22,500	12,000	23,800	127
Cooke No. 3,			Furnace,	......	......	......	......	......	......	......	54	1	15,000	10,000	16,500	60

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*Ventilates both mines.

TABLE I.—Continued

Names of Operators and Mines	Kind of opening	Gaseous or non-gaseous	Method of ventilation	Diameter of fan in feet and inches	Width of blades in feet and inches	Depth of blades in feet and inches	Number of revolutions per minute	Water gauge developed—in inches	Name of fan	Power used	Area of furnace bars in square feet	Number of splits of air currents	Number of cubic feet of air per minute entering the mine at inlet	Total number of cubic feet of air per minute circulating in all the splits	Number of cubic feet of air per minute passing out at outlet	Number of persons employed inside
Oak Ridge Mining Co. Oak Ridge No. 8, ...	Drift.	Non-gas., .	Fan, ...	6.0	1.8	2.5	400	.7	Clark, ...	Steam,.......	..	2	32,400	13,300	33,400	70
Reed Colliery Co. Berwinsdale No. 1, ...	Slope, ...	Non-gas., .	Fan, ...	7.0	1.5	3.0	180	.2	Stine, ...	Steam,.......	..	2	16,800	6,480	17,800	49
Ross Run Coal Co. Ross Run No. 1, ...	Drift, ...	Non-gas., .	Natural, ..	......	......	......	......	......	....	....	..	1	4,000	2,200	4,700	14
Clearfield and Cambria Coal and Coke Co. Lee Run No. 1, ...	Drift, ...	Non-gas., .	Fan, ...	10.0	2.5	4.0	140	.8	Stine, ...	Steam,.......	..	1	13,860	4,500	14,400	23
Savan Coal Mining Co. Savan No. 1, ...	Drift, ...	Non-gas., .	Furnace,..	......	......	......	......	......	....	....	56	1	11,200	5,400	13,000	25
Kelley Brothers Coal Co. Olanta No. 1, ...	Drift, ...	Non-gas., .	Furnace,..	......	......	......	......	......	....	....	56	1	10,000	4,000	10,640	24
Williams Run Coal Co. Williams Run No. 1, ...	Drift, ...	Non-gas., .	Furnace,..	......	......	......	......	......	....	....	30	1	10,000	7,000	12,000	54
Williams Run No. 2, ...	Drift, ...	Non-gas., .	Furnace,..	......	......	......	......	......	....	....	16	1	4,000	2,000	4,000	17
Good Clay and Coal Co. Bloomington No. 22A, ...	Drift, ...	Non-gas., .	Furnace,..	......	......	......	......	......	... .	....	42	1	10,560	4,250	10,920	82

Easton Coal Co.																
Howard, ...	Drift, ...	Non-gas., .	Furnace, ..	......	......	......	......	......	....	....	36	1	6,600	4,600	8,000	18
Unity Coal Co.																
Unity No. 1, ...	Slope, ...	Non-gas., .	Fan, ...	7.0	1.5	3.0	200	.5	Stine, ...	Steam, ...	..	1	15,000	8,000	15,000	16
Mahoning Coal Co.																
Ruth No. 1, ...	Drift, ...	Non-gas., .	Furnace, ..	......	......	......	......	......	....	....	20	1	2,000	2,000	2,500	10

TABLE J.—Mines using coal cutting machines, power used, geological and local names of seams, thickest and thinnest seams where machines are used, and the approximate number of tons produced by machines

Names of Operators	Names of Mines	Kind of opening	Gaseous or non-gaseous	Number of mining machines used	Power used by machines	Geological and local names of seams	Average thickness in inches	Height of Seam in Inches		Approximate number of tons produced by machines
								Thickest	Thinnest	
Cowanshannock Coal and Coke Co.,	Yatesboro Nos. 2, 4, and 5 Yatesboro No. 3, ...	Slope, ... Slope, ...	Non-gas., . Gaseous, ..	31 22	Compressed air, . Electricity, ...	Upper Freeport, Lower Freeport,	48 53	58 64	36 42	1,100,000
Totals, ...	....	....	....	53	....	....	......	......	......	1,100,000
Buffalo and Susquehanna Coal and Coke Co., ...	Sagamore No. 13, ... Sagamore Nos. 15, 17 and 18,	Drift, ... Drift, ...	Gaseous, .. Non-gas., .	70	Compressed air, .	Upper Freeport,	65	83	42	1,088,751
Allegheny River Mining Co., ...	Seminole Nos. 1 and 2, .. Conifer Nos. 3 and 4, .. Hunts Run, ...	Drift, ...	Non-gas., .	26 52 5	Electricity, ... Compressed air, . Compressed air, .	Upper Freeport. Brookville, ... Brookville, ...	44 48 42	48 60 46	40 36 36	388,790 515,529 10,506
Totals, ...	....	....	....	83	....	....	......	......	......	914,825
Jefferson and Clearfield Coal and Iron Co., ...	Trout Run No. 1, ... Maplewood, ... Soldier No. 4, ...	Drift, ...	Non-gas., .	37 6 3	Compressed air, .	Lower Freeport,	56 72 66	72 84 72	40 60 60	348,685 77,662 49,341
Totals, ...	....	....	....	46	....	....	......	......	......	475,688
Anita Coal Mining Co., ...	Anita No. 6, ...	Slope, ...	Gaseous, ..	24	Compressed air, .	Lower Freeport,	60	72	48	235,380

Seneca Coal Mining Co.,	Seneca No. 1,	Drift,	Non-gas.,	29	Compressed air,	Upper Freeport,	60	72	24	254,256
Fairmount Coal Co.,	Fairmount No. 5,	Drift,	Non-gas.,	14	Compressed air,	Lower Kittanning,	28	81	24	106,577
	Fairmount No. 8,			3	Electricity,		108	192	48	69,300
	Fairmount No. 9,			1	Electricity,		108	192	48	2,816
Totals,				18						178,693
Peale, Peacock and Kerr, Inc.,	Bloomington No. 19A,	Drift,	Non-gas.,	4	Electricity,	Lower Freeport,	36	40	32	63,712
Rochester and Pittsburgh Coal and Iron Co.,	Walston No. 7,	Drift,	Non-gas.,	2	Compressed air,	Lower Freeport,	60	72	36	80,355
	Walston No. 9,			2	Electricity,		60	72	50	3,000
	Walston No. 11,			6	Compressed air,		60	72	36	9,580
Totals,				10						92,935
S. A. Rian Coal Co.,	Adrian No. 2,	Slope,	Non-gas.,	1	Electricity,	Lower Freeport,	66	84	54	10,240
Reed Colliery Co.,	Berwinsdale No. 1,	Slope,	Non-gas.,	2	Electricity,	Lower Freeport,	36	48	34	25,000
Clearfield and Cambria Coal and Coke Co.,	Lee Run No. 1,	Drift,	Non-gas.,	3	Electricity,	Upper Freeport,	36	36	36	4,222
Williams Run Coal Co.,	Williams Run Nos. 1 and 2,	Drift,	Non-gas.,	8	Compressed air,	Lower Freeport,	49	48	47	10,650
Unity Coal Co.,	Unity No. 1,	Slope,	Non-gas.,	3	Electricity,	Lower Freeport,	36	36	36	6,761
Grand totals,				354						4,461,113

TABLE 1.—Operators, Location of Mines, Railroads, etc.

Names of Operators and Mines	County	Name of General Superintendent	Post Office	Name of Superintendent	Post Office	Railroad to Mine
Cowanshannock Coal and Coke Co.						
Yatesboro Nos. 2, 3, 4 and 5, ..	Armstrong, ...	L. W. Robinson, ...	Punxsutawney, ...	James Craig, ...	Yatesboro, ...	B. R. and P. and R. V.
Buffalo and Susquehanna Coal and Coke Co.						
Sagamore Nos. 11* and 12,* ..	Indiana, ...	James Harvey, ...	DuBois, ...	H. A. Moulder, ...	Sagamore, ...	B. and S.
Sagamore Nos. 13,* 14, 15, 16,* 17 and 18, ...	Armstrong,					
Allegheny River Mining Co.						
Seminole Nos. 1 and 2, ...	Armstrong,	D. C. Morgan, ...	Kittanning, ...	Arthur White, ...	Seminole, ...	Pittsburgh and Shawmut
Conifer Nos. 1,* 2,* 3 and 4, ..	Jefferson, ...			Arnold Hirst, ...	Conifer, ...	
Hunts Run, ...	Jefferson, ...			Arnold Hirst, ...	Conifer, ...	
Jefferson and Clearfield Coal and Iron Co.						
Trout Run No. 1, ...	Jefferson, ...	I. J. Harvey, ...	Helvetia, ...	A. R. Ritchie, ...	Reynoldsville, ...	B. R. and P.
Maplewood, ...						
Soldier No. 4, ...						
Anita Coal Mining Co.						
Anita Nos. 1†, 6 and 7, ...	Jefferson, ...	W. S. Blaisdell, ...	Punxsutawney, ...	N. S. White, ...	Horatio, ...	B. R. and P.
Seneca Coal Mining Co.						
Seneca No. 1, ...	Indiana, ...	Harry Yates, ...	Buffalo, N. Y., ...	Thomas Donnelly, ..	Chambersville, ...	B. R. and P.
Fairmount Coal Co.						
Fairmount Nos. 2,§ 3, 5, 6, 8 and 9,	Armstrong, ..	E. C. Roberts, Sr., ..	Buffalo, N. Y., ...	E. C. Roberts, Jr., ..	New Bethlehem, ...	Pennsylvania
Peale, Peacock and Kerr, Inc.						
Glen Richey Nos. 3,† 4† and 5,	Clearfield, ..	R. H. George, ...	Winburne, ...	R. H. George, ...	Winburne, ...	N. Y. C. and H. R.
Bloomington Nos. 18A and 19A,						
Rochester and Pittsburgh Coal and Iron Co.						
Walston Nos. 6, 6½, 7, 9 and 11	Jefferson, ...	R. B. Dick, ...	De Lancey, ...	W. W. Scott, ...	Walston, ...	B. R. and P.
Potts Run Land Co.						
Potts Run Nos. 2 and 3, ...	Clearfield, ...	F. B. Kerr, ...	Clearfield, ...	John Boag, ...	Boardman, ...	N. Y. C. and H. R.

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*Idle.
†Abandoned.
§Abandoned in April.

Carnwath Coal Co. Carnwath Nos. 1 and 2,‡	Clearfield,	R. H. Sommerville,	Winburne,	James Gray,	New Millport,	New York Central
S. A. Rinn Coal Co. Adrian No. 2,	Jefferson,	S. A. Rinn,	Punxsutawney,	W. W. Trussell,	Punxsutawney,	B. R. and P.
Pine Run Coal Co. Brooks No. 1,‡ Pine Run No. 5, Cooke No. 3,‡ Cobough Nos. 1,† 2,†	Armstrong,	J. A. Beam,	New Bethlehem,	W. C. Beam,	New Bethlehem,	Pittsburgh and Shawmut Pennsylvania Pittsburgh and Shawmut Pennsylvania
Oak Ridge Mining Co. Oak Ridge No. 8,	Armstrong,	Henry Williams,	Oak Ridge,	Henry Williams,	Oak Ridge,	Pennsylvania
Reed Colliery Co. Berwinsdale No. 1,	Clearfield,	W. H. Reed,	Dudley,	W. H. Reed,	Dudley,	Pennsylvania
Ross Run Coal Co. Ross Run No. 1,	Jefferson,			Bert D. Hampson,	Punxsutawney,	Pennsylvania
Clearfield and Cambria Coal and Iron Co. Lee Run No. 1,	Clearfield,	W. H. Thomson,	La Jose,	W. H. Thomson,	La Jose,	Pennsylvania
Savan Coal Mining Co. Savan No. 1,	Indiana,	L. M. Kelley,	Snow Shoe,	W. D. O'Brien,	Snow Shoe,	B. R. and P.
Kelley Brothers Coal Co. Olanta No. 1,	Clearfield,	M. D. Kelley,	Snow Shoe,	H. P. Kelley,	Snow Shoe,	N. Y. C. and H. R.
Williams Run Coal Co. Williams Run Nos. 1‡ and 2,‡	Jefferson,	W. S. Blaisdell,	Punxsutawney,	W. S. Blaisdell,	Punxsutawney,	Pennsylvania
Good Clay and Coal Co. Bloomington No. 22A,	Clearfield,	George E. Prindible,	Patton,	B. R. Spackman,	Bells Landing,	N. Y. C. and H. R.
Easton Coal Co. Howard,	Clearfield,	A. D. Lydic,	Mahaffey,	A. D. Lydick,	Mahaffey,	Pennsylvania
Unity Coal Co. Unity No. 1,	Clearfield,	Fred A. Hannah,	Scranton,			Pennsylvania
Mahoning Coal Co. Ruth No. 1,‡	Armstrong,	S. W. Sullivan,	New Bethlehem,	S. W. Sullivan,	New Bethlehem,	Pittsburgh and Shawmut

†Abandoned.
‡New mine.

TABLE 2.—Number of tons of coal mined and tons of coke produced, number of days worked, number of persons employed, number killed and injured, quantity of powder, dynamite and permissible explosives used, etc.

Names of Operators and Mines	County	Number of tons of coal shipped to market	Number of tons used at mines for steam and heat	Number of tons sold to local trade and used by employes	Number of tons used in manufacture of coke	Total production of coal in tons	Total production of coke in tons	Number of coke ovens	Number of days worked	Number of employes	Number of fatal accidents	Number of non-fatal accidents	Explosives			Number of horses and mules
													Number of pounds of powder used	Number of pounds of dynamite used	Number of pounds of permissible explosives used	
Cowanshannock Coal and Coke Co.																
Yatesboro Nos. 2, 3, 4 and 5,	Armstrong,	1,199.507	48,000	2,762	....	1.250.269	....	......	291	1,246	3	7	120,000	4,000	....	......
Buffalo and Susquehanna Coal and Coke Co.																
Sagamore Nos. 13, 15, 17 and 18,	Armstrong,	1,043,215	42,120	3,416	....	1.088.751	....	......	302	987	2	5	88,100	18,300	1,500	32
Allegheny River Mining Co.																
Seminole Nos. 1 and 2,	Armstrong,	534,675	4,962	1,140	....	540,797	....	......	261	461	....	2	96,400	10,000	....	......
Conifer Nos. 3 and 4,	Jefferson,	497,275	10,859	7,396	....	515,529	....	......	261	490	1	2	70,000	600	....	22
Hunts Run,		9,101	1,405	....	....	10,506	....	......	285	29	....	....	1,000	9,000	....	4
Totals,		1,041,051	17,246	8,536	....	1,066,832	....	......	......	980	1	4	167,400	19,600	....	27
Jefferson and Clearfield Coal and Iron Co.																
Trout Run No. 1,	Jefferson,	343,674	19,260	524	....	363,458	....	......	282	358	....	3	3,875	....	3,960	......
Maplewood,		76,402	1,260	....	....	77,662	....	......	281	44	....	....	1,200	....	....	3
Soldier No. 4,		48,025	2,100	....	....	50,125	....	......	282	41	1	....	650	....	700	......
Totals,		468,101	22,620	524	....	491,245	....	......	......	443	1	3	5,725	....	4,660	3

Anita Coal Mining Co.																
Anita No. 6, ...	Jefferson, ...	214,480	20,900	....	....	235,380	....	......	289	230	1	3	60,406	....	....	22
Anita No. 7, ...		68,625	400	....	....	69,025	....	......	263	41	....	....	15,651	....	....	3
Totals, ...	....	283,105	21,300	....	....	304,405	....	......	......	271	1	3	76,057	....	....	25
Seneca Coal Mining Co.																
Seneca No. 1, ...	Indiana, ...	246,837	6,616	803	....	254,256	....	......	279	250	....	1	2,100	2,075	....	......
Fairmount Coal Co.																
Fairmount No. 2, ...	Armstrong, ...	18,553	108	....	....	18,661	....	......	72	89	....	....	6,220	....	....	5
Fairmount No. 3, ...		23,272	205	....	....	23,477	....	......	157	76	....	1	7,825	10	....	4
Fairmount No. 5, ...		110,867	4,076	....	....	114,943	....	......	250	169	1	2	19,546	50	....	12
Fairmount No. 6, ...		6,967	36	....	....	7,003	....	......	81	36	....	....	1,167	....	....	3
Fairmount No. 8, ...		79,501	2,740	46	....	82,287	....	......	281	138	....	1	22,881	....	2,000	10
Fairmount No. 9, ...		4,186	39	....	....	4,225	....	......	104	30	....	....	658	500	....	2
Totals, ...	....	243,346	7,204	46	....	250,596	....	......	......	538	1	4	58,297	560	2,000	36
Peale, Peacock and Kerr, Inc.																
Glen Richey No. 5, ...	Clearfield, ...	120,582	992	669	....	122,248	....	......	265	164	....	....	25,130	695	....	22
Bloomington No. 18A, ..		22,637	104	26	....	22,767	....	......	254	33	....	1	3,625	750	....	4
Bloomington No. 19A, ..		92,295	....	2	....	92,297	....	......	278	107	....	....	18,475	380	......	1
Totals, ...	....	235,514	1,096	697	....	237,307	....	......	......	304	....	1	47,230	1,825	....	27
Rochester and Pittsburgh Coal and Iron Co.																
Walston Nos. 6, 6½, 7, 9 and 11, ...	Jefferson, ...	216,379	7,841	240	....	224,460	....	......	299	210	....	1	2,500	70,968	....	......
Potts Run Land Co.																
Potts Run No. 2, ...	Clearfield, ...	56,578	80	500	....	57,158	....	......	236	68	....	....	700	350	....	6
Potts Run No. 3, ...		86,201	100	....	....	86,301	....	......	236	91	1	....	1,000	900	....	6
Totals, ...	....	142.779	180	500	....	143,459	....	......	......	159	1	....	1,700	1,250	....	12
Carnwath Coal Co.																
Carnwath No. 1, ...	Clearfield, ...	96,992	771	670	....	98,433	....	......	284	86	....	1	20,000	250	....	......
Carnwath No. 2, ...		32,112	....	250	....	32,362	....	......	171	68	....	....	8,000	3,000	....	......
Totals, ...	....	129,104	771	920	....	130,795	....	......	......	154	....	1	28,000	3,250	....	......
S. A. Rinn Coal Co.																
Adrian No. 2, ...	Jefferson, ...	74,432	1,921	....	....	76,353	....	......	272	72	....	1	13,220	....	....	7
Pine Run Coal Co.																
Brooks No. 1, ...	Armstrong, ...	49,019	....	....	....	49,019	....	......	251	79	....	....	15,295	....	....	3
Pine Run No. 5, ...		13,521	270	....	....	13,791	....	......	44	138	....	1	4,305	....	....	8
Cooke No. 3, ...		4,858	....	....	....	4,858	....	......	48	70	....	....	1,600	....	....	2
Totals, ...	....	67,398	270	....	....	67,668	....	......	......	287	....	1	21,200	....	....	13

TABLE 2.—Continued

Names of Operators and Mines	County	Number of tons of coal shipped to market	Number of tons used at mines for steam and heat	Number of tons sold to local trade and used by employes	Number of tons used in manufacture of coke	Total production of coal in tons	Total production of coke in tons	Number of coke ovens	Number of days worked	Number of employes	Number of fatal accidents	Number of non-fatal accidents	Explosives: Number of pounds of powder used	Explosives: Number of pounds of dynamite used	Explosives: Number of pounds of permissible explosives used	Number of horses and mules
Oak Ridge Mining Co. Oak Ridge No. 8, ...	Armstrong, ...	64,692	373	....	....	65,065	....	......	269	82	....	2	40,000	100	....	7
Reed Colliery Co. Berwinsdale No. 1, ...	Clearfield, ...	36,000	1,000	250	....	37,250	....	......	288	55	....	....	12,000	500	....	5
Ross Run Coal Co. Ross Run No. 1, ...	Jefferson, ...	20,168	....	....	....	20,168	....	......	227	17	....	....	6,250	....	....	3
Clearfield and Cambria Coal and Coke Co. Lee Run No. 1, ...	Clearfield, ...	15,982	720	639	....	17,341	....	......	201	26	....	....	8,750	100	....	......
Savan Coal Mining Co. Savan No. 1, ...	Indiana, ...	15,748	40	30	....	15,818	....	......	297	28	....	....	2,000	300	....	2
Kelley Brothers Coal Co. Olanta No. 1, ...	Clearfield, ...	12,290	55	25	....	12,370	....	......	214	28	....	....	5,000	150	....	2
Williams Run Coal Co. Williams Run Nos. 1 and 2, ...	Jefferson, ...	10,500	150	....	....	10,650	....	......	94	81	....	....	3,000	....	....	3
Good Clay and Coal Co. Bloomington No. 22A, ..	Clearfield, ...	9,055	35	60	....	9,150	....	......	308	34	....	1	3,550	1,166	....	2
Easton Coal Co. Howard, ...	Clearfield, ...	7,581	51	30	....	7,662	....	......	175	21	....	1	2,500	20	....	2

Unity Coal Co. Unity No. 1, ...	Clearfield, ...	6,561	200	....	....	6,761	....	......	90	16	....	....	2,000	....	....	2
Mahoning Coal Co. Ruth No. 1, ...	Armstrong, ...	3,929	....	10	....	3,939	....	......	114	13	....	....	1,200	2,225	....	1
Grand totals, ...	....	5,593,274	179,809	19,487	....	5,792,570	....	......	......	6,302	10	36	717,779	126,389	8,160	211

TABLE 2.—Part 2

Names of Operators	County	Number of Boilers					Locomotives				Number of steam engines of all classes	Total horse power	Number of pumps delivering water to surface	Capacity in gallons per minute	Quantity delivered to surface per minute—gallons	Number of electric dynamos	Number of air compressors
		Cylindrical	Horse power	Tubular	Horse power	Total horse power	Gasoline	Steam	Air	Electric							
Cowanshannock Coal and Coke Co.,	Armstrong,	......	......	16	5,900	5,900	......	......	......	31	6	5,876	7	6,600	3,000	6	7
Buffalo and Susquehanna Coal and Coke Co.,	Armstrong,	......	......	10	3,500	3,500	......	......	......	12	4	4,000	8	1,880	1,320	3	4
Allegheny River Mining Co.,	Armstrong, Jefferson,	......	......	17	2,400	2,400	......	......	......	16	10	1,900	13	3,340	1,800	5	5
Jefferson and Clearfield Coal and Iron Co.,	Jefferson,	......	......	13	1,800	1,800	......	......	......	8	3	320	......	......	......	2	5
Anita Coal Mining Co.,	Jefferson,	......	......	11	1,975	1,975	......	......	......	4	7	1,200	8	6,400	6,400	2	3
Seneca Coal Mining Co.,	Indiana,	......	......	4	600	600	......	......	......	4	6	930	2	400	350	2	2
Fairmount Coal Co.,	Armstrong,	......	......	6	1,020	1,020	......	1	......	1	4	550	5	685	590	1	3
Peale, Peacock and Kerr, Inc.,	Clearfield,	......	......	2	300	300	......	......	......	2	2	300	......	......	......	1	......
Rochester and Pittsburgh Coal and Iron Co.,	Jefferson,	......	......	6	900	900	......	......	......	7	5	1,700	3	500	300	2	2
Potts Run Land Co.,	Clearfield,	......	......	1	75	75	......	......	......	......	1	75	......	......	......	......	......
Carnwath Coal Co.,	Clearfield,	......	......	2	300	300	......	......	......	3	1	230	4	440	320	2	......
S. A. Rinn Coal Co.,	Jefferson,	......	......	......	......	......	......	......	......	1	......	......	......	......	......	2	......
Pine Run Coal Co.,	Armstrong,	......	......	1	10	10	2	1	......	......	1	10	1	200	100	......	......
Oak Ridge Mining Co.,	Armstrong,	......	......	1	100	100	......	......	......	......	1	20	1	20	10	......	......
Reed Colliery Co.,	Clearfield,	......	......	2	160	160	......	......	......	......	1	24	1	250	200	1	......
Clearfield and Cambria Coal and Coke Co.,	Clearfield,	......	......	2	300	300	......	......	......	1	2	175	......	......	......	1	......
Kelley Brothers Coal Co.,	Clearfield,	......	......	......	......	......	......	......	......	......	......	......	1	100	75	......	......
Williams Run Coal Co.,	Jefferson,	......	......	2	300	300	......	1	......	......	2	250	......	......	......	1	1
Unity Coal Co.,	Clearfield,	......	......	2	120	120	......	......	......	......	2	170	2	300	200	1	1
Totals,		......	......	98	19,760	19,760	2	3	......	90	58	17,729	56	21,115	14,665	32	33

TABLE 3.—Number of Each Class of Employes Inside and Outside of Mines

Names of Operators	County	Inside												Outside								Grand total inside and outside
		Mine foremen	Assistant mine foremen	Fire bosses	Miners	Machine runners	Machine loaders	Machine scrapers	Drivers and runners	Doorboys and helpers	Company men	All other employes	Total inside	Superintendents	Foremen	Blacksmiths and carpenters	Engineers and firemen	Coke employes	Bookkeepers and clerks	All other employes	Total outside	
Cowanshannock Coal and Coke Co.,	Armstrong,	5	4	4	75	50	783	50	29	11	80	....	1,091	1	6	18	24	....	6	100	155	1,246
Buffalo and Susquehanna Coal and Coke Co.,	Armstrong,	4	8	5	......	60	587	60	20	6	107	24	881	1	3	11	7	....	4	80	106	987
Allegheny River Mining Co.,	Armstrong, Jefferson,	3	6	....	120	63	550	63	48	4	21	8	886	2	1	18	15	....	3	55	94	980
Jefferson and Clearfield Coal and Iron Co.,	Jefferson,	4	1	....	14	25	238	25	22	8	35	1	373	1	1	9	13	....	....	46	70	443
Anita Coal Mining Co.,	Jefferson,	2	..	2	37	8	168	8	11	....	13	....	249	1	....	6	10	....	3	2	22	271
Seneca Coal Mining Co.,	Indiana,	1	..	....	......	5	180	5	....	....	8	17	216	1	....	3	6	....	1	23	34	250
Fairmount Coal Co.,	Armstrong,	6	3	....	172	18	185	18	35	6	29	....	472	1	....	12	8	....	....	45	66	538
Peale, Peacock and Kerr, Inc.,	Clearfield,	3	1	....	190	3	47	3	14	2	14	....	277	....	....	5	3	....	2	17	27	304
Rochester and Pittsburgh Coal and Iron Co.,	Jefferson,	3	..	....	46	6	110	6	8	3	8	....	190	1	....	2	6	....	....	11	20	210
Potts Run Land Co.,	Clearfield,	2	1	....	130	....	......	....	6	1	5	....	145	1	....	3	2	....	....	8	14	159
Carnwath Coal Co.,	Clearfield,	2	1	....	124	....	......	....	6	....	5	....	138	1	....	2	1	....	2	10	16	154
S. A. Rinn Coal Co.,	Jefferson,	1	..	....	31	2	21	2	3	1	1	....	62	1	....	1	....	....	1	7	10	72
Pine Run Coal Co.,	Armstrong,	3	2	....	229	....	......	....	13	1	6	....	254	1	....	6	4	....	2	20	33	287
Oak Ridge Mining Co.,	Armstrong,	1	..	....	60	....	......	....	5	2	2	....	70	1	1	1	1	....	1	7	12	82
Reed Colliery Co.,	Clearfield,	1	..	....	12	2	26	2	3	....	2	1	49	1	1	1	2	....	1	......	6	55
Ross Run Coal Co.,	Jefferson,	1	..	....	12	....	......	....	1	....	....	....	14	....	1	....	....	....	1	1	3	17
Clearfield and Cambria Coal and Coke Co.,	Clearfield,	1	..	....	15	1	4	....	1	....	1	....	23	....	....	1	1	....	....	1	3	26
Savan Coal Mining Co.,	Indiana,	1	..	....	22	....	......	....	1	1	....	....	25	....	....	....	....	....	1	2	3	28
Kelley Brothers Coal Co.,	Clearfield,	1	..	....	20	....	......	....	1	1	1	....	24	1	....	1	....	....	1	1	4	28
Williams Run Coal Co.,	Jefferson,	2	..	....	......	6	47	6	3	....	6	1	71	....	....	3	3	....	....	4	10	81
Good Clay and Coal Co.,	Clearfield,	1	..	....	29	....	......	....	1	....	1	....	32	1	....	....	....	....	....	1	2	34

TABLE 3—Continued

Names of Operators	County	Inside												Outside								Grand total inside and outside
		Mine foremen	Assistant mine foremen	Fire bosses	Miners	Machine runners	Machine loaders	Machine scrapers	Drivers and runners	Doorboys and helpers	Company men	All other employes	Total inside	Superintendents	Foremen	Blacksmiths and carpenters	Engineers and firemen	Coke employes	Bookkeepers and clerks	All other employes	Total outside	
Easton Coal Co.,	Clearfield,	1	..	....	14	....	......	....	1	....	2	....	18	1	1	....	....	....	....	1	3	21
Unity Coal Co.,	Clearfield,	1	..	....	......	1	10	1	1	....	....	....	14	....	....	....	1	....	....	1	2	16
Mahoning Coal Co.,	Armstrong,	1	..	....	8	....	......	....	1	....	....	....	10	1	....	2	....	....	....	......	3	13
Totals,		51	27	11	1,360	250	2,956	249	234	47	347	52	5,584	19	15	105	107	....	29	443	718	6,302

TABLE 3—Part 2

Names of Operators	County	Average Number of Days Worked												
		January	February	March	April	May	June	July	August	September	October	November	December	Total
Cowanshannock Coal and Coke Co.,	Armstrong,	26	23	25	22	26	25	25	26	25	26	24	18	291
Buffalo and Susquehanna Coal and Coke Co.,	Armstrong,	25	24	26	25	26	25	25	26	24	27	24	25	302
Allegheny River Mining Co.,	Jefferson, Armstrong,	24	22	24	23	22	20	23	23	23	24	18	23	269
Jefferson and Clearfield Coal and Iron Co.,	Jefferson,	26	23	24	19	25	25	25	25	25	26	23	17	283
Anita Coal Mining Co.,	Jefferson,	26	24	25	21	25	24	13	19	25	27	24	23	276
Seneca Coal Mining Co.,	Indiana,	23	24	21	19	22	23	25	24	22	27	24	25	279
Fairmount Coal Co.,	Armstrong,	16	15	16	13	11	11	12	13	14	18	12	12	158
Peale, Peacock and Kerr, Inc.,	Clearfield,	24	21	22	23	24	23	22	22	22	22	19	22	266
Rochester and Pittsburgh Coal and Iron Co.,	Jefferson,	26	24	26	23	26	25	25	26	25	27	23	23	299
Potts Run Land Co.,	Clearfield,	22	22	12	18	12	18	20	22	25	24	24	22	236
Carnwath Coal Co.,	Clearfield,	12	11	12	11	12	24	25	26	24	25	22	24	228
S. A. Rinn Coal Co.,	Jefferson,	13	24	18	23	25	24	24	25	24	26	23	23	272
Pine Run Coal Co.,	Armstrong,	4	7	7	9	7	7	7	8	8	11	18	21	114
Oak Ridge Mining Co.,	Armstrong,	23	17	25	23	24	23	22	21	22	22	18	24	269
Reed Colliery Co.,	Clearfield,	24	24	24	24	24	24	24	24	24	24	24	24	288
Ross Run Coal Co.,	Jefferson,	22	20	22	21	22	21	20	20	19	17	5	18	227
Clearfield and Cambria Coal and Coke Co.,	Clearfield,	25	20	12	12	14	12	12	15	20	20	18	21	201
Savan Coal Mining Co.,	Indiana,	26	24	26	26	25	25	24	25	25	25	24	22	297
Kelley Brothers Coal Co.,	Clearfield,	21	20	22	15	16	18	10	16	20	22	20	15	214
Williams Run Coal Co.,	Jefferson,	......	......	......	......	......	......	......	......	19	27	23	25	94
Good Clay and Coal Co.,	Clearfield,	27	24	26	26	26	25	26	26	26	27	24	25	308
Easton Coal Co.,	Clearfield,	24	22	23	5	......	......	......	7	24	25	23	22	175
Unity Coal Co.,	Clearfield,	20	21	19	15	8	4	......	3	......	......	......	......	90
Mahoning Coal Co.,	Armstrong,	......	......	......	......	......	......	10	21	22	20	21	20	114

TABLE 4—Fatal Accidents Inside and Outside of Mines

Date of accident		Name of Person	Nationality	Occupation	Age	Married or single	Number of widows	Number of orphans	Name of Mine	County	Nature and Cause of Accident in Brief
Jan.	8	Andrew Disho, ...	Slavonian, ..	Miner, ...	25	M.	1	2	Potts Run No, 3,	Clearfield, ...	Killed by fall of coal at face of room while undermining without having set sprags.
	28	John Rundell, ...	Scotch, ...	Miner, ...	21	S.	....	....	Soldier No. 4, ...	Jefferson, ...	Instantly killed by fall of roof at face of entry.
Feb.	11	Clint Snyder, ...	American, ..	Runner, ...	29	M.	1	2	Conifer No. 3, ...	Jefferson, ...	Instantly killed by falling in front of a loaded trip that the motor was pushing towards the face of heading.
	25	Joseph D. Frongiesco,	Italian, ...	Fireman, ...	34	M.	1	2	Yatesboro No. 5,..	Armstrong, ...	Killed by falling from ladder to concrete floor of building. Outside.
June	13	Anton Nickelson, ...	Swedish,....	Machine runner,	27	S.	....	....	Yatesboro No. 2,..	Armstrong, ...	Instantly killed by fall of slate at face of room while under-cutting with a mining machine.
Aug.	20	James Jones, ...	American, ..	Mine foreman	42	M.	1	4	Anita No. 6, ...	Jefferson, ...	Killed by falling down air shaft.
	29	Daniel Gross, ...	Hungarian, .	Laborer, ...	60	M.	1	....	Sagamore No. 18,..	Armstrong, ...	Killed by mine cars while cleaning track on tram road between tipple and entrance to mine. Outside.
Sept.	26	J. E. Lightholder, ...	English, ...	Loader, ...	37	M.	1	4	Sagamore No. 15,..	Armstrong, ...	Fatally injured by fall of coal and bone coal that he was working under in entry cross-cut.
Oct.	2	Joe Schemiski, ...	Slavonian, ..	Scraper, ...	20	S.	....	....	Yatesboro No. 5,..	Armstrong, ...	Fatally injured at face of room by having his leg caught with the bits of a chain mining machine.
Dec.	8	Carey Brown, ...	American, ..	Loader, ...	19	S.	....	....	Fairmount No. 5,..	Armstrong, ...	Instantly killed by fall of rock at face of room.

TABLE 5.—Non-Fatal Accidents Inside and Outside of Mines

Date of accident		Name of Person	Nationality	Occupation	Age	Married or single	Name of Mine	County	Nature and Cause of Accident in Brief
Jan.	28	Guiseppi Cusatila, ...	Italian, ...	Miner, ...	19	S.	Yatesboro No. 2, ...	Armstrong, ...	Leg fractured by fall of roof at face of room.
Feb.	1	Thomas Morris, ...	American, ..	Laborer, ...	45	M.	Anita No. 6, ...	Jefferson, ...	Collar bone broken by fall of brick stopping that was being taken down in entry cross-cut.
	4	Thomas Brown, ...	Scotch, ...	Doorboy, ...	16	S.	Sagamore No. 18, ...	Armstrong, ...	Arm broken and hips bruised by being caught between an electric motor and trap door on entry.
	22	John Farriarri, ...	Austrian, ..	Miner, ...	45	M.	Trout Run No. 1, ...	Jefferson, ...	Arm broken and body bruised by mine cars on entry at mouth of room.
	25	Teto Francisco, ...	Austrian, ..	Scraper, ...	29	S.	Conifer No. 3, ...	Jefferson, ...	Leg broken at face of room by being caught between mining machine and machine board.
	28	Alanzo Reighard, ...	American, ..	Miner, ...	20	S.	Oak Ridge No. 8, ...	Armstrong, ...	Body bruised by fall of slate at face of room.
March	2	Lewis Vallies, ...	American, ..	Lineman, ...	39	M.	Seminole No. 1, ...	Armstrong, ...	Hips bruised by being caught between motor and roof on entry at neck of room.
	6	Daniel Neiswanger, ..	American, ..	Laborer, ...	65	M.	Fairmount No. 5, ...	Armstrong, ...	Hand badly lacerated by mine cars. Outside.
	17	John Slingshot, ...	Slavonian, ..	Miner, ...	43	M.	Anita No. 6, ...	Jefferson, ...	Both legs broken by fall of bone coal at face of room.
April	2	John Paca, ...	Italian, ...	Miner, ...	36	S.	Yatesboro No. 2, ...	Armstrong, ...	Leg broken by fall of roof at face of room.
	22	O. Sheriff, ...	German, ...	Miner, ...	42	M.	Fairmount No. 5, ...	Armstrong, ...	Bruised about head and body by fall of roof at face of room.
May	8	Henry Bish, ...	American, ..	Driver, ...	39	M.	Oak Ridge No. 8, ...	Armstrong, ...	Leg fractured by fall of slate on siding of main haul road.
July	8	Robert Hockenbery, ..	American, ..	Motorman, ...	12	S	Yatesboro No. 4, ...	Armstrong, ...	Leg and three ribs broken by being caught between an electric motor and mine cars on haulage road.
	21	Samuel Johnston, ...	English, ...	Runner, ...	36	M.	Sagamore No. 17, ...	Armstrong, ...	Hips squeezed between mine cars and rib at heading switch.
	25	Gene Muscauttelli, ...	Italian, ...	Scraper, ...	23	S.	Yatesboro No. 4, ...	Armstrong, ...	Leg injured by mine cars on tram road. Outside.

TABLE 5—Continued

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Name of Mine	County	Nature and Cause of Accident in Brief
July 25	John Yount,	American,	Miner,	39	M.	Fairmount No. 3,	Armstrong,	Foot crushed by being caught between bumpers of mine cars on tram road. Outside.
Sept. 2	Dominic Constable,	Italian,	Dumper,	20	S.	Fairmount No. 8,	Armstrong,	Compound fracture of leg by mine cars. Outside.
3	Joe Lorance,	Hungarian,	Cutter,	32	M.	Sagamore No. 15,	Armstrong,	Leg broken above knee by fall of coal at face of room.
9	James Mitchell,	English,	Miner,	34	M.	Trout Run No. 1,	Jefferson,	Leg fractured below knee by fall of coal at face of room.
23	William Frey,	American,	Miner,	55	M.	Howard,	Clearfield,	Compound fracture of leg by mine cars on entry at mouth of room.
26	James Dixon.	Scotch,	Driver,	40	M.	Bloomington No. 18A,	Clearfield,	Thumb fractured by mine cars on heading.
Oct. 1	Steve Fanda,	Italian,	Loader,	31	M.	Yatesboro No. 4,	Armstrong,	Both legs fractured by fall of bone coal at face of room.
3	Pete Renn,	Italian,	Miner,	21	S.	Adrian No. 3,	Jefferson,	Ankle bruised by fall of slate at face of room.
14	John Hunt, Sr.,	English,	Miner,	63	M.	Carnwath No. 1,	Clearfield,	Leg broken by fall of roof at face of room.
20	John Lukhart,	American,	Miner,	28	M.	Sagamore No. 15,	Armstrong,	Collar bone broken and right hip dislocated by fall of roof at face of room.
24	Frank Chirano,	Italian,	Miner,	30	S.	Walston No. 11,	Jefferson,	Chin cut and foot bruised by fall of roof at face of room.
Nov. 3	George Geirholt,	American,	Miner,	29	S.	Yatesboro No. 8,	Armstrong,	Leg broken by fall of roof at face of room.
	William Barzoni,	Italian,	Miner,	38	M.	Yatesboro No. 3,	Armstrong,	Two ribs broken and shoulder bruised by fall of roof at face of entry.
8	John Koosick,	Russian,	Miner,	37	M.	Sagamore No. 13.	Armstrong,	Leg broken at ankle by fall of roof at face of room.
22	John Burtini,	Austrian,	Loader.	21	S.	Conifer No. 8.	Jefferson,	Leg broken below knee by fall of coal at face of room.
Dec. 2	Angelo Buigailli,	Italian,	Miner,	37	M.	Seminole No. 1,	Armstrong,	Back and legs bruised by fall of bone coal at face of room.
5	Murry Matiskie,	Polish,	Laborer,	42	M.	Trout Run No. 1,	Jefferson,	Leg fractured by mine cars. Outside.
6	B. E. Rickard,	American,	Miner,	35	M.	Pine Run No. 5,	Armstrong,	Fracture of first lumbar vertebra, laceration of neck, forehead, knee and leg by fall of coal at face of room.

Dec.	13	Nick Stock, ...	Italian, ...	Miner, ...	19	S.	Anita No. 6, ...	Jefferson, ...	Back bruised by fall of coal and bone coal in pillar adjacent to the pillar he was working in near cross-cut.
	16	Frank Ferrilli, ...	Italian, ...	Miner, ...	54	M.	Seneca No. 1, ...	Indiana, ...	Shoulder blade fractured and hip bruised by premature discharge of blast in coal at face of room.
	27	John Spanogle, ...	American, ..	Miner, ...	30	M.	Bloomington No. 22A, ..	Clearfield, ...	Back and legs bruised by fall of roof at face of room.

CONDITION OF MINES

COWANSHANNOCK COAL AND COKE COMPANY

Yatesboro No. 2.—Ventilation reasonably good. Drainage satisfactory.

Yatesboro No. 3.—Ventilation fair, except in some portions of the mine where it is defective and less than the minimum amount required by law. Drainage needs improvement in part of the mine.

Yatesboro No. 4.—Ventilation defective in part of the mine, not being properly conducted to the live workings. Drainage fair.

Yatesboro No. 5.—Ventilation defective in the major portions of the mine, not being properly split and conducted to the live workings. Drainage fair.

BUFFALO AND SUSQUEHANNA COAL AND COKE COMPANY

Sagamore No. 13.—Ventilation and drainage good.

Sagamore No. 15.—Ventilation fair. Drainage good.

Sagamore No. 17.—Ventilation and drainage good.

Sagamore No. 18.—In excellent condition in every respect.

ALLEGHENY RIVER MINING COMPANY

Seminole Nos. 1 and 2.—Ventilation and drainage fair.

Conifer Nos. 3 and 4.—Ventilation reasonably good. Drainage good.

Hunts Run.—Ventilation and drainage fair.

JEFFERSON AND CLEARFIELD COAL AND IRON COMPANY

Trout Run No. 1.—Ventilation defective in sections Nos. 1 and 2, due to the air not being properly split and conducted to the live workings. Drainage reasonably good.

Maplewood.—Ventilation fair, except in some portions. Drainage good.

Soldier No. 4.—Ventilation and drainage fair.

ANITA COAL MINING COMPANY

Anita No. 6.—Ventilation fair, except in No. 6 right heading. Drainage fair.

Anita No. 7.—Ventilation unsatisfactory. Drainage good.

SENECA COAL MINING COMPANY

Seneca No. 1.—Ventilation fair in some parts of mine, but defective in others. Drainage good.

FAIRMOUNT COAL COMPANY

Fairmount No. 2.—Abandoned in April.

Fairmount No. 3.—Ventilation reasonably good. Drainage good.

Fairmount No. 5.—Ventilation fair in major portions of mine. Drainage fair.

Fairmount No. 6.—Ventilation in good condition. Drainage good, except in 3rd right which was unsatisfactory.

Fairmount No. 8.—Ventilation good, except at face of main headings where the volume of air was insufficient. Drainage good.

Fairmount No. 9.—Idle since May.

PEALE, PEACOCK AND KERR, INCORPORATED

Glen Richey No. 5.—Ventilation unsatisfactory in major portions of mine, due to leakage at trap doors and stoppings. Drainage fair, except at a few local points.

Bloomington No. 18A.—Ventilation and drainage good.

Bloomington No. 19A.—Ventilation defective when inspected, but arrangements were being made to split the air current, which should improve the ventilation. Drainage good.

ROCHESTER AND PITTSBURGH COAL AND IRON COMPANY

Walston Nos. 6 and 6½.—Ventilation and drainage fair.

Walston No. 7.—Ventilation in fair condition in some parts of mine, but not properly conducted to live workings in other parts. Drainage good.

Walston No. 9.—Ventilation unsatisfactory. Drainage good.

Walston No. 11.—Ventilation fair in some parts of mine, but not properly conducted to live workings in other parts. Drainage good.

POTTS RUN LAND COMPANY

Potts Run No. 2.—Ventilation fair. Drainage defective in parts of mine.

Potts Run No. 3.—Ventilation defective when inspected, but a new fan was being installed which should provide ample ventilation. Drainage fair.

CARNWATH COAL COMPANY

Carnwath No. 1.—Ventilation fair in some parts of mine, but not properly conducted to live workings in other parts. Drainage defective in most parts of mine.

Carnwath No. 2.—Ventilation and drainage good.

S. A. RINN COAL COMPANY

Adrian No. 2.—Ventilation and drainage fair.

Adrian No. 5.—New operation not under the law.

PINE RUN COAL COMPANY

Brooks No. 1.—Not in operation when visited.

Pine Run No. 5.—Ventilation and drainage good.

Cooke No. 3.—Ventilation and drainage fair.

OAK RIDGE MINING COMPANY

Oak Ridge No. 8.—Ventilation and drainage fair.

REED COLLIERY COMPANY

Berwinsdale No. 1.—Ventilation fair, except in No. 4 right. Drainage defective along main haulage road.

ROSS RUN COAL COMPANY

Ross Run No. 1.—Ventilation and drainage fair.

CLEARFIELD AND CAMBRIA COAL AND COKE COMPANY

Lee Run No. 1.—Ventilation reasonably good. Drainage defective in parts of mine.

SAVAN COAL MINING COMPANY

Savan No. 1.—Ventilation and drainage fair.

KELLEY BROTHERS COAL COMPANY

Olanta No. 1.—Ventilation defective. Drainage fair.

WILLIAMS RUN COAL COMPANY

Williams Run Nos. 1 and 2.—New operations. Not under the law when inspected.

GOOD CLAY AND COAL COMPANY

Bloomington No. 22A.—Ventilation very unsatisfactory. A new furnace has been built since my inspection, which should furnish ample ventilation. Drainage good.

EASTON COAL COMPANY

Howard.—Ventilation not very satisfactory. Drainage good.

UNITY COAL COMPANY

Unity No. 1.—Idle the greater portion of the year. Not inspected.

MAHONING COAL COMPANY

Ruth No. 1.—Ventilation and drainage fair.

IMPROVEMENTS

COWANSHANNOCK COAL AND COKE COMPANY

Yatesboro No. 2.—Built 79 concrete stoppings and one overcast.

Yatesboro No. 3.—Built 69 concrete stoppings and 3 overcasts.

Yatesboro No. 5.—Built 128 concrete stoppings and 10 overcasts. Built a 25-ton per hour coal crusher at tipple for Nos. 2 and 3 mines to crush the refuse from the different mines for boiler use. Installed two 500 H. P. Keeler boilers, equipped with Jones underfeed stokers. A large dam was built and 4,000 feet of 8-inch pipe laid from the dam to the power plant to insure a plentiful supply of water during the dry season.

BUFFALO AND SUSQUEHANNA COAL AND COKE COMPANY

Sagamore No. 13.—Built 2 overcasts, faced 36 stoppings with concrete and improved the condition of the traveling way.

Sagamore No. 15.—Faced 22 stoppings with concrete and rebuilt 5 stoppings with incombustible material.

Sagamore No. 17.—Faced 58 stoppings with concrete, rebuilt 6 with incombustible material and improved the condition of the traveling way.

Sagamore No. 18.—Faced 79 stoppings with concrete, built 23 stoppings and 2 oversasts of incombustible material and improved the conditions of the traveling way.

ALLEGHENY RIVER MINING COMPANY

Seminole Nos. 1 and 2.—Added 3 Sullivan short wall cutting machines to the equipment.

Conifer Nos. 3 and 4.—Made a double track haulage system into the body of the mine. A shaft, 12 by 16 feet, was sunk at the face of the workings to be used for pumping station, ventilation and substation power house. New machinery installed at power plant, consisting of two 150 H. P. boilers equipped with Jones underfeed stokers; one Ridgway engine and dynamo, alternating current, 2,600 volts, 750 H. P. at shaft substation, one Ridgway motor-generator set, 200 K. W., one Sullivan compound compressor, capacity 1,200 cubic feet per minute, driven by an electric motor, one American mine pump, 8 by 10 inch piston, electrically driven, located at bottom of shaft.

JEFFERSON AND CLEARFIELD COAL AND IRON COMPANY

Trout Run No. 1.—Considerable work done in the way of blasting top to improve the condition of the traveling way; repaired all brattices between the main intake and return air courses. Outside: An extra side track was made leading to the tipple to increase the car storage. An addition was built to the tipple so that in case of a break-down on the main tipple the coal could be dumped over this addition and not delay the operation of the mine. Laid 600 feet of pipe line to two small reservoirs and drilled a well 175 feet deep to help furnish water for the power plant during the dry season.

SENECA COAL MINING COMPANY

Seneca No. 1.—Built 20 stoppings of incombustible material and cleaned up the main air-course.

PEALE, PEACOCK AND KERR, INCORPORATED

Bloomington No. 19A.—Main air-way was cleaned up and enlarged at several points. Stoppings between main intake and main return air-course up to 1st right were faced with concrete or rebuilt.

CARNWATH COAL COMPANY

Carnwath No. 2.—Installed an 8 foot Stine fan electrically driven. Built a brick building, 30 by 40 feet, divided into three compartments, separated by brick partitions, to be used as generator room, blacksmith shop and motor barn. Installed a 150 K. W. motor-generator, built by the Ridgway Dynamo and Engine Company.

PINE RUN COAL COMPANY

Brooks No. 1.—Installed a 5 foot Sirocco fan, driven by a gasoline engine. Built tram road from railroad to tipple, a distance of 1.25 miles.

Pine Run No. 5.—Built 10 double tenement houses.

Cooke No. 3.—Graded for incline from the railroad to the mine opening, a distance of 300 feet. Erected a temporary dump and laid track on incline. New operation.

GOOD CLAY AND COAL COMPANY

Bloomington No. 22A.—Built a furnace and added 20 new mine cars to the equipment.

PROSECUTIONS FOR VIOLATION OF THE MINING LAWS

December 3.—Joe Rumofski and J. Tokash, loaders, Sagamore No. 13, Buffalo and Susquehanna Coal and Coke Company. Charge: Firing a blast without tamping the hole. December 19, plead guilty. Sentenced to pay a fine of $2.00 each and costs.

December 3.—Anthony Zeilinsky and Anthony Belavich, machine runner and scraper, Sagamore No. 13, Buffalo and Susquehanna Coal and Coke Company. Charge: Not setting sprags under the coal while undercutting. December 19, plead guilty. Sentenced to pay a fine of $2.00 each and costs.

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